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OF THE  
**Railroads of Connecticut**  
TO ACCOMPANY THE REPORT OF THE  
**RAILROAD COMMISSIONERS.**  
1894

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41ST ANNUAL REPORT

OF THE

RAILROAD COMMISSIONERS

OF THE

STATE OF CONNECTICUT,

TO WHICH ARE ADDED

STATISTICAL TABLES

COMPILED FROM THE

ANNUAL RETURNS OF THE RAILROAD COMPANIES OF THE STATE  
FOR THE YEAR ENDING JUNE 30, 1893.

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PRINTED BY ORDER OF THE LEGISLATURE.

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HARTFORD, CONN.:  
PRESS OF THE CASE, LOCKWOOD & BRAINARD COMPANY.  
1893.

RAILROAD COMMISSIONERS.

GEO. M. WOODRUFF,

WM. O. SEYMOUR,

ALEX. C. ROBERTSON.



# State of Connecticut.

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## REPORT.

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*To his Excellency* LUZON B. MORRIS,

*Governor of Connecticut :*

The year 1893, the period covered by this the forty-first annual report of the Railroad Commissioners, has been an important one in the history of the chief companies reporting to us, including as it does the lease of the Old Colony system to the New York, New Haven & Hartford, and the appointment of receivers for the New York & New England, and also for the Philadelphia, Reading & New England, but it has been absolutely uneventful so far as new enterprises are concerned. The location of the Danbury & State Line Railway Company from the corner of Main and Franklin Streets in Danbury to the New York State Line in Ridgefield, a distance of a little more than seven miles, which matter was pending at the date of our last report, was duly approved by us in March last, but nothing whatever so far as we know has been done towards its construction. The only new construction was the 1.66 miles of the "West River Branch" to connect the New York, New Haven & Hartford, and the New Haven & Derby at New Haven. The Westerly & Jewett City Railroad Company was chartered by the last General Assembly, but no application for approval of its location has been made. All of the stock of the New York, Providence & Boston Railroad Company, and of the Hartford & Connecticut Valley Railroad Company having been exchanged for that of the New York, New Haven & Hartford Railroad Company, the corporate existence of the former two companies has terminated, and the number reporting to us is now only eighteen, while the lease of the Meriden, Waterbury & Connecticut River Railroad to the New York & New England has reduced the number of operating companies to only six, two of which operate all but 163.73 miles out of the 1,013.22 miles of rail-

road in the State. It will be remembered that it was the New York, Providence & Boston Railroad Company which gave to Connecticut its first railroad, the road from Stonington, Conn., to Providence, R. I., having been opened for use on the 10th day of November, 1837, while that from New Haven to Hartford, the next to be constructed, was not opened till December 14, 1839. The mileage of roads operated by companies reporting to us is increased 26 miles by the changes noted elsewhere. The operations of the 618.89 miles of the Old Colony system as then constituted were not included in the accounts of the New York, New Haven & Hartford Railroad Company till after the close of the fiscal year ending June 30, 1893. Corporate changes and other matters affecting the several companies will be referred to in speaking of the respective companies. The matter most seriously affecting the companies as a whole, and concerning the safety of the traveling public, was the action taken at the last session of the Legislature in regard to street railroads and the right to use electricity thereon. As to the effect upon the earnings of the steam railroads to follow from the construction of electric roads running between towns now served more or less satisfactorily by the former we have no occasion to speak, but the construction of these roads in the highways, involves in many cases the crossing of steam railroads at grade at crossings already incumbered with a large amount of travel. That the building of street railroads over such grade-crossings increases the danger to travel has never been seriously disputed. So early as 1883 or 1884, before electricity came to be applied to street railroads in our State, a bill was introduced into the Legislature forbidding the construction of street railroads at grade across steam roads; the measure failed to meet the approval of the members of the General Assembly, but in 1889 such a law was passed. No disinterested person will deny that electric cars are more dangerous than horse cars; they are run at much greater speed, are much heavier, and more liable to unexpected stops, and when derailed are more difficult to be placed in position, and are run more frequently. It is even claimed, with justice as it seems to us, that the crossing of steam and electric roads may be more dangerous than of two steam roads, as the cars run on the electric road are much more numerous in proportion to passengers carried than on the steam road. At the



last session, however, it was proposed to modify this prohibition so that it should no longer be absolute, but should allow such crossing with the approval of this board. It being claimed that such was the form of the act of 1889, as reported by the committee, and as actually passed, and that the prohibitory feature was given to it by the mistaken substitution of a period for a semicolon in the punctuation of the engrossed copy and printed edition of the laws. We strenuously opposed before the committee the proposed change, believing it to be a partial reversal of what had become the policy of the State, that no new grade-crossings should be permitted, and that existing ones should be eliminated as rapidly as practicable, a policy endorsed and sustained most effectively by the courts of our State. So far as we know we were alone in our opposition to the change in the law, the managers of the steam railroads and others seeming either to think the change unimportant, or that it was proper that the act should be made to conform to what was claimed was its original intent. It has been also claimed that the change in the law was one in form only and not in substance. That while the act of 1889 absolutely prohibited a crossing at grade, the Legislature in saying, in the act of 1893, that it should not be allowed except with the approval of the Railroad Commissioners, intended and believed that such approval would never be given, as it well knew that the Commissioners regarded such crossings as dangerous. Such an interpretation of the action of the General Assembly would in our judgment impute fraud, and cannot be entertained, and besides the Legislature by its action in several cases where it expressly granted the right to street railroads to cross steam roads at grade clearly indicated its intention to change the policy of the State in this regard. We should have been pleased to adopt both the reasoning and conclusions of the Pennsylvania Supreme Court on this subject. By an act passed in 1871, it was provided that when certain "legal proceedings relate to crossings of lines of railroads by other railroads, it shall be the duty of courts of equity of this commonwealth to ascertain or define by their decree the mode of such crossing which will inflict the least practicable injury upon the rights of the company owning the road which is intended to be crossed; and if, in the judgment of such court, it is reasonably practicable to avoid a grade-crossing they shall by their process prevent a crossing at grade." Subsequently in 1889

an electric railroad was incorporated and expressly authorized "to cross at grade diagonally or transversely any railroad operated by steam or otherwise, now or hereafter built." The matter came before the Supreme Court on a temporary injunction obtained to prevent such crossing, and the court said that if by the language thus employed in the act of incorporation of the electric railroad the legislature intended, not only to barter away the police power of the State in regard to such crossings, but also to limit the jurisdiction of courts of equity in relation thereto, then such legislation would be fitly characterized as "exceedingly vicious," but adds "we can not think any such construction as that should be given," and in conclusion directs that the record be remitted to the court below, "with instructions to enter a decree perpetually enjoining the defendant from crossing plaintiff's road at grade." The Railroad Commissioners of this State have no equity jurisdiction, and it would be manifestly improper for them to assume to give a construction of the statute of 1893 and the various special acts so apparently opposite to their intent. A judicial interpretation could only be obtained through injunction proceedings to prevent the construction of such a crossing after its approval by us. We have therefore felt bound to recognize this apparent change of policy by the legislature, and to permit crossings on applications under the general law in cases where the circumstances seemed to us to justify such action under the implied instructions of the Legislature, but the only case which has as yet come before us of an application for leave to cross at grade the double tracks of a main line, is as yet undecided. We, however, must regard the change of the law as mistaken policy and as contrary to public interest and safety. It would have been easier to have retained the prohibition than it will be to restore it, while the substitution of electricity for horses as a motive power unquestionably increases the danger at such crossings, and it seems to us that if the permissive feature of the law is to be retained, it should be further amended so that in case the Commissioners declined to allow the crossing at grade they might direct that the street or highway with the street railroad be carried either over or under the steam road, the expense of such change to be apportioned between the steam railroad company, the street railroad company, and the borough, town, or city in which the crossing is situated. Such a law would permit the consideration in each instance of the question whether the cost of separating



the grades thus apportioned would be so great a burden as to restrict the building of electric roads beyond the reasonable demands of the public. For ten years our laws have prohibited the construction of new highways at grade across steam railroads, but we have never heard of a complaint that it had unreasonably interfered with the laying out of highways. The railroad companies having to pay one-half of the expense of carrying such highways over or under the tracks, the burden of the other half has not prevented our towns and cities from opening whatever highways or streets were needed ; hence we may assume that such a law as we have suggested would not seriously interfere with the building of any electric road for which there was a legitimate demand. If, however, the General Assembly should not think proper to amend the law as suggested, the Commissioners should at least be empowered to impose such regulations, conditions, and restrictions in the use of the grade-crossing as in their opinion public safety would require. We believe such a provision would be approved by the street or electric railroad companies themselves. It was embodied in the resolution incorporating the Bridgeport (street) Railway Company, and the duty of conforming to such regulations, conditions, and restrictions has been voluntarily assumed by two or three companies applying to us for approval of such crossing. Such a general provision of law would be better than to attempt to provide by statute in detail just what regulations should be required, as these must depend upon the location and character of the crossing.

## FINANCIAL STATEMENTS.

The year covered by the annual returns terminated before the present business depression had begun to appreciably affect the earnings of the companies, nor had it become necessary to reduce the number of trains and otherwise lessen expenses to meet the reduced earnings.

### CAPITAL STOCK AND INDEBTEDNESS.

The total amount of capital stock issued up to the 30th of last June, as reported to us, was \$84,997,140.88, being an increase of \$9,037,810.00, or 11.9 per cent. over the preceding year. The New York, New Haven & Hartford reports an increase of \$9,563,000.00,

which is counterbalanced in part by the retirement of the \$5,000,-000.00 stock of the New York, Providence & Boston and the \$800,000.00 of the Hartford & Connecticut Valley previously reported. The Philadelphia, Reading & New England reports \$6,600,000.00, while the Central New England & Western, to which the Philadelphia, Reading & New England succeeded, reported last year only \$1,600,000.00. The Boston & New York Air Line reports \$910.00 more; the Hartford & Connecticut Western \$15,-900.00 more; the New York & New England \$152,600.00 more in preferred stock; the Norwich & Worcester \$125,300.00, while the Housatonic reports \$3,900.00 less, and the Meriden, Waterbury & Connecticut River \$16,000.00 less.

It will be remembered that in 1889 the New York, New Haven & Hartford Railroad Company, whose capital stock was then \$15,-500,000.00, obtained authority to increase the amount to not exceeding \$50,000,000.00 to take up its funded and floating debt, to make permanent improvements, and, till the year 1900, in exchange for the stock and obligations of any railroad company whose property it might hold by lease for not less than fifty years or might thereafter acquire if situated in whole or in part within this State. After the lease of the Old Colony Railroad by the New York, New Haven & Hartford it applied for and obtained at the last session of the Legislature an amendment to the resolution of 1889, increasing the amount of stock which it might issue to \$100,000,000.00, and extending the right of exchange of stock to the case of leased roads located in whole or in part in adjoining States. Whenever all the stock of a leased road is exchanged its corporate existence terminates and its stock is canceled, but until such complete exchange of stock has taken place, such portion as has been taken by the New York, New Haven & Hartford is held by it as an owner of the stock, so that during that time the property account of the railroad companies is represented both by the stock of the leased road and by that of the New York, New Haven & Hartford issued in exchange therefor. Up to June 30, 1893, 37,630 shares, \$3,763,-000.00, had been so issued besides the 59,000 shares issued in exchange for an equal amount of canceled shares of the New York, Providence & Boston, the Hartford & Connecticut Valley, and the Stamford & New Canaan Railroad Companies.

The total indebtedness has increased \$7,483,588.89, amounting to \$52,262,828.57, the funded debt being \$44,589,423.38, and cur-

rent liabilities amounting to \$7,673,405.19. The indebtedness of the New York, New Haven & Hartford being \$2,014,667.63 more than the amount reported by it and the New York, Providence & Boston last year, and the Philadelphia, Reading & New England gives its debt at \$10,960,473.20, that of the Central New England & Western having been \$4,239,220.22. The stock issued averages per mile of road \$51,451.05, the smallest amount still being by the Colchester Railway and the largest by the New York, New Haven & Hartford, which, however, has been reduced by the absorption of the New York, Providence & Boston and Hartford & Connecticut Valley, with their smaller averages, to \$116,656.63 per mile instead of \$156,731.93 as last year.

The stock issued per mile of single track, not including sidings, now averages \$40,524.61. The funded debt averages \$26,991.17 per mile of road, or \$21,259.18 per mile of single track, and the current liabilities average \$4,644.92 per mile of road and \$3,658.49 per mile of single track.

#### GROSS EARNINGS.

The operations of our railroads for the year resulted in gross earnings of \$26,337,215.54, which was an increase of \$1,967,429.92, or almost 8 per cent. The proportion between passenger and freight revenue being about as usual, the former amounting to \$11,153,345.47 and the latter to \$12,914,469.19, miscellaneous earnings making up the balance. The passenger revenue averaged \$6,504.66 per mile operated and one dollar twenty-one cents and three mills per mile run, a gain of \$118.45 per mile operated and one cent and one mill per mile run. The freight revenue averaged \$7,531.62 per mile operated and one dollar seventy-three cents nine mills per mile run, being a gain of \$509.82 per mile operated, but a loss of five and one-half cents per mile run.

#### OPERATING EXPENSES.

The increase in operating expenses was proportionately a trifle greater than that in gross earnings. They amounted to \$18,473,967.23, an increase of \$1,376,756.66, or a little more than 8 per cent. The per cent. of operating expenses to gross earnings was 70.14 per cent., or two one-hundredths of one per cent. more than the preceding year.



## NET EARNINGS.

The net earnings for the year were \$7,863,248.31, a gain of \$559,931.29.

## TAXES.

The total amount of taxes paid by the companies reporting to us was \$1,180,193.29, of which sum \$746,040.78 was paid to the State of Connecticut, being about 32 per cent. of all the taxes received by the State. The taxes paid amounted to 15 per cent. of the net income of the companies.

## DIVIDENDS.

The amount paid in dividends during the year amounted to \$3,856,916, which was \$123,175.00 more than the previous year. The New York & New England having been enjoined from paying dividends on its preferred stock, the New York, New Haven & Hartford was the only operating company which paid any dividends whatever. The dividends paid by seven other companies out of the eighteen in the State paying dividends being from rentals received from the New York, New Haven & Hartford, and seven paying no dividends.

## PASSENGERS AND FREIGHT CARRIED.

The increase in the number of passengers carried was a little less than two-thirds of the increase of the preceding year, the whole number carried being 33,611,019 or 989,974 more than last year, an increase of 3.03 per cent. The average length of journey of each passenger was 17.93 miles, and the total revenue received from them was \$11,153,347.47 or 33.18 cents per passenger, which was .22 cents per passenger more than the preceding year.

The freight carried amounted to 12,121,740 tons, an increase of 269,029 tons or 2.27 per cent. The total freight revenue was \$12,914,469.19 or one dollar six cents and five mills per ton, an increase of six cents and four mills. The average carriage of each ton of freight was 72.68 miles.

## TRAIN MILEAGE.

The total amount of miles run by trains of all kinds was 21,625,551, an increase of 1,148,878 miles, the increase being chiefly in the mileage of freight trains. The passenger mileage was

9,195,095, an increase of 246,737 or 2.75 per cent. The freight mileage was 7,426,738, an increase of 812,413 or 12.28 per cent., and the mileage of other trains 5,003,718, an increase of 89,728 miles or 1.72 per cent.

	Passengers Carried.	Per cent. of Increase.	Passenger Train— Mileage.	Per cent. of Increase.	Passenger Earnings.	Per cent. of Increase.
1883	16,352,617	6.14	5,848,310	6.69	\$7,041,937.02	5.05
1884	16,957,574	3.70	5,891,372	.73	7,208,545.77	3.78
1885	17,430,921	2.79	6,009,251	2.00	7,171,389.92	*2.24
1886	19,011,381	9.06	6,146,401	2.12	7,754,571.26	8.13
1887	21,380,621	12.46	6,347,192	5.83	8,021,169.33	3.43
1888	22,972,666	7.45	6,849,291	7.91	8,249,094.87	2.84
1889	24,010,221	4.51	7,232,184	5.59	8,690,033.15	5.34
1890	28,771,448	19.83	8,038,935	11.15	9,735,830.86	12.03
1891	31,087,344	8.05	8,560,232	6.48	10,370,249.96	6.51
1892	32,621,045	4.93	8,948,358	4.53	12,114,032.02	16.81
1893	33,611,019	3.03	9,195,095	2.75	12,760,037.62	5.33
1883 to 1893	.....	105.54	.....	57.23	.....	81.20

\* Decrease.

	Tons of Freight Carried.	Per cent. of Increase.	Freight Train— Mileage.	Per cent. of Increase.	Freight Earnings.	Per cent. of Increase.
1883	7,219,469	8.46	4,372,635	6.03	\$8,003,510.07	8.49
1884	8,169,319	13.15	4,160,321	*4.86	7,537,516.66	*5.82
1885	6,873,997	*15.86	3,800,597	*8.65	7,284,985.37	*3.48
1886	7,925,815	15.30	4,148,540	9.15	8,383,431.08	13.70
1887	8,438,712	6.48	4,308,164	3.84	8,830,384.15	5.45
1888	7,729,549	*8.41	4,673,783	8.48	9,064,789.57	2.65
1889	7,926,382	2.54	4,767,171	2.00	9,287,227.98	2.45
1890	9,904,197	24.95	5,390,288	13.07	10,949,669.80	17.89
1891	11,032,851	11.40	6,168,506	14.44	11,388,797.36	4.01
1892	11,852,711	7.43	6,614,325	7.21	11,986,001.19	5.24
1893	12,121,740	2.27	7,426,738	12.28	13,292,914.31	10.90
1883 to 1893	.....	67.89	.....	69.85	.....	66.09

\* Decrease.

#### PROPERTY ACCOUNT.

The property account of the companies now amounts to \$149,933,160.45, apportioned as follows: Cost of roads, \$119,359,058.95; equipment account, \$14,930,623.40; stocks and bonds owned, \$4,150,123.14; other permanent investments, \$4,238,357.87;

cash and current assets, \$4,835,634.24, and other assets, \$2,419,363.45. The total increase is \$19,942,959.93. The Philadelphia, Reading & New England reporting cost of road \$12,204,646.79 more than the cost of the Central New England & Western reported last year, and the cost of road now reported by the New York, New Haven & Hartford being \$5,993,330.37 in excess of that the previous year reported by it, the New York, Providence & Boston, and the Hartford & Connecticut Valley.

The average cost of road per mile of main line and branches is \$73,011.86, which is \$56,907.56 per mile of single track, not including sidings, or \$43,485.20 per mile sidings included. The cost of equipment averages \$8,754.07 per mile operated.

#### LENGTH OF ROADS.

The length of main lines and branches within the State is, as now reported, 1,013.22, the changes from last year being caused by transferring the piece of old road Groton to Poquonnock, 4.10 miles, and the "Stonington Loop," .97 miles, on the Providence Division of the New York, New Haven & Hartford, from side track to main line, an addition of .15 miles for re-measurement of this division, and .51 miles by re-measurement of Housatonic; and the construction of the "West River" connection between the New York, New Haven & Hartford main line at New Haven and the New Haven & Derby, making a total addition of 7.39 miles, and a reduction of .33 miles by a transfer of so much from main line to side tracks on Norwalk & Danbury. There are 233.60 miles of second track in the State, and 11.61 miles each of third and fourth track, making 1,270.04 miles of single track. There are also 358.89 miles of sidings, which, being added, gives 1,628.93 as the total length of tracks in this State.

#### EARNINGS AND EXPENSES PER MILE OPERATED.

The returns for the year cover the operation of 1,714.70 miles of railroad. The gross earnings per mile operated were \$15,359.66, or \$927.72 in excess of the previous year. The operating expenses per mile operated were \$10,773.88, or \$648.80 more than the previous year. The net earnings were \$4,585.79, or \$260.72 in excess of the previous year.



## EARNINGS AND EXPENSES PER MILE RUN.

The gross earnings per mile run were two cents and eight mills more than the previous year, amounting to one dollar twenty-one cents and eight mills, and as the operating expenses per mile run averaged two cents and one mill more than the preceding year, amounting to eighty-five cents and five mills, the net earnings per mile run increased seven mills, amounting to thirty-six cents and three mills. The passenger earnings per mile run averaged one dollar thirty-eight cents and eight mills, and the freight earnings one dollar seventy-eight cents and nine mills.

## MAINTENANCE OF WAY AND STRUCTURES.

The total amount charged to maintenance of way and structures was \$3,044,600.40, which was an average of \$1,775.59 per mile operated, or \$.141 per mile run, an increase of \$103.21 per mile operated and \$.004 per mile run. These figures indicate that the way and structures have been kept in good repair.

In these statements and in the tables given in this report the figures of operation of the Meriden, Waterbury & Connecticut River Railroad for that portion of the year prior to its lease to the New York & New England are not included.

## ACCIDENTS.

Although there has been but two train accidents resulting in any loss of life, yet the accident record for the railroads within the State for the year ending June 30, 1893, has not, except as to passengers, been a favorable one. The total number of passengers injured was four less than last year, amounting to nineteen in all. Of this number, seven were killed, two of them in a collision and the other five through their own negligence; and of the remaining twelve injured three were injured in train accidents, and the others through their own negligence.

## EMPLOYEES.

The number of employes injured was disastrously large, amounting to 509, or 71 more than last year. Of these 64 were fatally injured, which was five more than last year. The proportion of fatal accidents was 12.57 per cent. the past year, and 13.47 per cent. the previous year. The employes injured were classified

as trainmen, 411 injured, 39 fatally; switchmen, flagmen, and watchmen, 43 injured, 6 of them fatally; other employes injured 55, of which number 19 were killed or died of their injuries. The number of trainmen injured in coupling or uncoupling cars and engines was 203, of whom 6 were killed; 94 fell from trains, 20 being killed; 34 were hurt in collisions, 2 of them fatally; 13 were injured by derailments; 20 were struck by overhead bridges or other obstructions, 4 being killed; and 37 were hurt in various other ways, of whom 7 were killed. Of the switchmen, flagmen, and watchmen, 26 were injured in coupling; 6 fell from trains, 2 of them being killed; 1 was struck by an overhead obstruction, 1 was killed in a collision, and 9 others were injured in some other manner, 3 of them being fatally hurt.

Of the other employes, 3 were injured in coupling, 2 killed by falling from trains, and 50 others injured in various ways, of which number 17 died of their injuries.

#### TRESPASSERS.

The number of this class injured was also more than the preceding year, having been 163, as against 158, and a little more than one-half the number, or 85, being either killed or dying from their injuries.

#### NON-TRESPASSERS.

The number of persons neither passengers, employes, nor trespassers injured was proportionately much less than the preceding year, amounting to 33 in all, which was only about 65 per cent. of the number the previous year; more than one-half, or 18 out of the 33, were fatally hurt.

#### AT HIGHWAY CROSSINGS.

We are happy to report that the number returned as injured at highway crossings was but 31, as against 48 the previous year. Necessarily, the proportion killed is large, amounting to 16 out of the 31.

It would naturally be supposed that the number of grade-crossings of highways and railroads in the State would easily be determined, but we have found the number the most elusive of figures. In preparing the table showing such crossings by towns, first published in our report of January, 1888, we obtained lists and de-

scriptions of such crossings from both railroad companies and towns, and where the statements varied caused special investigations to be made. The list so prepared we believed to be as nearly accurate as possible. Of course, everyone acquainted with railroad matters in this State knows that no new highway has been laid out at grade across a railroad since 1883, and no new crossing of a highway by a railroad made at grade since the construction of the Meriden & Cromwell in 1884-5, except the temporary crossing at Washington Avenue, New Haven, now being carried over the track, while a considerable number have been eliminated during that time. But after the Housatonic and Danbury & Norwalk roads passed under the control of the New York, New Haven & Hartford, the engineering department of the latter company reported, as the result of its investigation, that the number of highway crossings on the line of the Housatonic railroad was eleven more than had been given by the preceding administration. The figures were received so late last year that they were published as reported, but the attention of the department was called to the matter with a request for a careful reinvestigation. As a result, the number of such crossings on the Housatonic is now given as 128, instead of 141, as reported last year; and the number on the Danbury & Norwalk, including those on the Bethel branch transferred to the Shepaug, Litchfield & Northern, 78, instead of 77, which practically accords with the enumeration made by us in 1888, the total number now reported being 1,114.

### CONDITION OF THE ROADS.

The number of operating roads doing business within the State is reduced to six, viz.:

The New York, New Haven & Hartford Railroad, exclusive of the Old Colony system, controlling					1165.42				
The New York & New England Railroad,					controlling	575.53	"	"	"
The Philadelphia, Reading & New England Railroad,					controlling	185.60	"	"	"
The Central Vermont Railroad, operating the New London Northern Railroad,					controlling	121.00	"	"	"



The Shepaug, Litchfield & Northern				
Railroad, operating also the				
Bethel branch,	controlling	38.23	miles of single track.	
The South Manchester Railroad,				
	controlling	2.25	" " " "	
Total,		2088.03	" " " "	

As elsewhere stated, the Hartford & Connecticut Valley Railroad Company, the New York, Providence & Boston Railroad Company, the Stamford & New Canaan Railroad Company, and the Watertown & Waterbury Railroad Company have each terminated their existence as separate corporations. The three first named have merged their property into that of the New York, New Haven & Hartford Company by the exchange of the stock of those companies for that of the latter company, and the last named has been transferred to the Naugatuck Railroad Company. Other similar corporate changes are likely soon to follow, as 24,035 shares out of a total of 24,600 shares of the New Haven & Northampton Company have been exchanged for the stock of the New York, New Haven & Hartford Company, the Boston & New York Air Line Company has exchanged 15,725 shares of a total of 29,985 shares, the Shore Line Railway Company has exchanged 8,068 shares of a total of 10,000 shares, the Naugatuck Railroad Company has exchanged 9,551 shares of a total of 20,000 shares, the Housatonic Railroad Company has exchanged 22,528 shares of a total of 28,756 shares, the Danbury & Norwalk Railroad Company has exchanged 8,928 shares of a total of 12,000 shares, and the New Haven & Derby Railroad Company has exchanged 3,497 shares of a total of 4,470 shares, making a total of \$9,663,000.00 of the stock of the New York, New Haven & Hartford Company, which has been exchanged for the stock of its leased lines. The companies named above, together with the Old Colony system, are likely eventually to be merged in the property of the operating company, sharing the results of operation, rather than to remain as leased lines being operated at a fixed rental, thus unifying the property and dispensing with the necessity of maintaining a separate corporate organization for each of the several lines comprising the system.

A careful examination of the expenditures of the various companies during the past year will indicate clearly that the most

important changes which have been made in the physical condition of the roads are those which pertain to the four-tracking of the New York division, and the double-tracking of the Shore Line division of the New York, New Haven & Hartford Railroad, which will be more minutely described in the remarks under those respective divisions.

The amount expended for the maintenance of way and structures has been \$3,044,600.40, being \$1,458.12 per mile of single track operated, and constituting 16 per cent. of the total operating expenses of the companies. It may be interesting to note that the *per cent.* of operating expenses expended for maintenance of way and structures is precisely the same as last year, although the amounts differ. The number of tons of steel rails laid during the year is 9,840.79, varying in weight from 75 to 100 lbs. per yard. The number of new ties placed in the track is 742,991, being 355 per mile of single track. The whole number of persons employed on the various railroads has been 20,415, to whom the sum of \$11,669,391.05 has been paid for their services; of which number 5,252, or 25 per cent. of the total number, have been employed in the department of maintenance of way and structures. The amount charged to the construction account for permanent improvements has been \$4,226,985.87. For the maintenance of equipment the sum of \$2,488,820.11 has been expended, and \$1,216,464.27 has been charged to the equipment account for new equipment consisting of 37 locomotives, 16 parlor cars, 4 composite cars, 47 passenger coaches, 2 smoking cars, 1 mail car, and 30 box cars, together with floating equipment amounting to \$262,300.

#### NEW YORK, NEW HAVEN & HARTFORD RAILROAD.

##### *New York Division.*

The four-track construction between New Haven and Bridgeport is well advanced, and portions of it will soon be brought into use. The most noticeable features of this work are the reduction of the heavy grades at various points between West Haven and the Housatonic River, the Woodmont cut-off, which materially shortens the line and eliminates some very objectionable curvature, and the removal of all grade-crossings wherever the work extends. Beyond

the Housatonic River, through the village of Stratford to the city limits of Bridgeport, the construction is fast approaching completion. From South Norwalk to Portchester, excepting those portions through the villages of Stamford and Greenwich, the work is progressing vigorously, particularly between Greenwich and Portchester, where it will soon be completed and ready for use. These improvements involve a practical reconstruction of the road and its structures, and the fact that this is being done with so little interruption to the immense traffic over this portion of the line and with so few accidents is highly creditable to those who manage the operating and construction departments.

### *Hartford Division.*

The completion of the new brick passenger station building at Berlin, with its capacious and pleasant waiting room, and all the conveniences connected therewith, together with the sheltered platforms, facilitating the transfer of passengers and baggage to and from the Middletown and New Britain branches, constitutes one of the most important improvements of this division, and is in striking contrast with the former condition of things at that station, and must be greatly appreciated by those who have occasion to use it.

Another important change is that of laying new steel rails, weighing 100 lbs. per yard, the heaviest ever used within the State, on that portion of this division extending from Hartford to Springfield, Mass. The steadiness and smoothness with which trains now pass over this heavy rail must be apparent to all who ride over this portion of the line. The cost involved in such a renewal may be of general interest. The length of double track between Hartford and Springfield is 26 miles, making 52 miles of single track. It requires 157 tons of rails, weighing 100 lbs. per yard, to lay one mile of single track, or 8,164 tons for 52 miles. The report of the company for the past year shows the average price per ton for steel rails at the distributing point to be \$30.33, making the cost of 8,164 tons to be \$247,614.12 for rails alone, not including the cost of angle plates and bolts, spikes, and the labor of taking up the old rails and laying the new ones, nor the expense of changing all the frogs and switches connecting with the main track to correspond with the changed size of rails. These and other items would swell the total cost to about \$300,000.00.



*New London Division.*

The amount charged to the capital accounts of the New York, New Haven & Hartford Railroad for the year ending June 30, 1893, for the second track construction on this division, including bridges and the removal of grade-crossings, is in round figures \$800,000.00. Only one other single item of that account exceeds this amount, viz., the amount expended for real estate and right of way. These figures indicate the amount of work done better than words can. Those familiar with the condition of the road and its structures previous to the inauguration of the second track work can realize the changes which have been made since that time. The only portion of the double tracking remaining to be completed is that between New Haven and a point just west of East Haven, which it is expected will be opened for service in the early part of the coming summer. That portion of the double track which has been completed this season between Leete's Island and Pine Orchard is an entirely new line with little or no grade or curvature, and, while it was an expensive line to construct, it is a great improvement upon the old line for which it was substituted. The block signal system, referred to in our last report as then being introduced, is completed and in service as far as the double track has been finished.

*Stonington Division.*

Only eighteen miles of this division are within the State of Connecticut; and, as far as the road-bed, track, and bridges are concerned, they have been maintained in excellent condition. A new iron girder bridge, consisting of three spans of 42 feet each, with girders 42 inches deep, has been erected at Noank. The block signal system has also been extended and put in operation over this division.

*Air Line Division.*

Aside from the work incident to the maintenance of way and structures, little or nothing has been done in projecting new work not connected with this department. New floors have been placed on 26 open culverts, and nine other openings have been furnished with iron pipe drains, and have been filled. Also 350 tons of new steel rails have been placed in the track. The same attention to the neat and tidy appearance of the station grounds, previously referred to, is everywhere apparent.

*Naugatuck Division.*

While no new or important improvements have been undertaken on this division during the past year, there is evidence of the same wise and careful attention to the maintenance of the property in good and safe condition which has for many years been characteristic of those who have charge of the operating and maintenance departments. A new iron bridge has been erected on the Watertown branch, and the other bridges of the line have received such repairs and renewals as were needed. The track has been improved by laying 300 tons of new steel rails.

*Northampton Division.*

The unusual amount of care and attention given for the last two years to the improvement of the condition of the track of this division has produced very gratifying results, and this commendation is justly due to those whose untiring efforts have contributed to the same. Four hundred and sixty tons of new steel rails have been placed in the track during the past year, and the various bridges of the line have been maintained in good condition.

*Valley Division.*

The Dutch Point piling has been renewed and put in satisfactory condition, and the other bridges of the line have received such renewals and repairs as were necessary. The track is generally in good condition, and the curves connecting with the Shore Line division at Saybrook have been reduced, and the connections have been greatly improved. A new passenger station building has been erected at Rocky Hill, and the station grounds, freight yard, and tracks at Essex have recently been rearranged and improved.

*Berkshire Division.*

This division, which has not heretofore appeared in this report, includes the West River branch, extending from the Union depot in New Haven to the junction with the New Haven & Derby Railroad, the Botsford branch, and the Housatonic main line, with its branches in Massachusetts. Trains over this division leave the Union depot at New Haven, also from Bridgeport; and passengers from New York for Brookfield Junction and points north are taken over the Danbury division, *via* South Norwalk and Danbury, instead

of by way of the Bethel branch, as heretofore done. The condition of that portion of this line comprising the New Haven & Derby road and the Botsford branch has recently been very greatly improved and put in first-class order for the increased traffic which now passes over it. The track and bridges of the Housatonic main line have also been maintained in their usually good condition. A new passenger station building is being erected at Botsford Junction.

*Danbury Division.*

The Bethel branch of this division is now operated by the Shepaug, Litchfield & Northern Railroad, and the passenger and freight traffic for that road is transferred to it at Bethel, and that destined for points on the Housatonic main line is taken through Danbury over the Brookfield branch to Brookfield Junction, thus avoiding the heavy grades and sharp curves of the Bethel branch. The track, roadbed, and bridges of this division have been maintained in excellent condition.

SUMMARY OF OPERATIONS OF THE NEW YORK, NEW HAVEN & HARTFORD RAILROAD COMPANY.

The amount expended for maintenance of way and structures for the past year has been \$2,190,984.50, amounting to \$1,880.08 per mile of single track operated, and being  $17\frac{2}{5}$  per cent. of the total operating expenses. The number of new ties placed in the track has been 454,265, amounting to 389 ties per mile; and 5,233 tons of new steel rails have been laid. The whole number of employes in the company's service is 13,987, to whom the sum of \$7,646,940.38 has been paid as compensation for services rendered. The number of persons employed in the maintenance of way and structures is 3,541, being 25 per cent. of the whole number of employes.

The amount charged to the construction account for permanent improvements is \$4,226,985.87, some of the prominent items of which are \$1,600,127.23 for real estate and right of way, \$799,718.59 for double-tracking the New London division and the elimination of grade crossings thereon, \$732,890.47 for four-tracking the New York division and the elimination of grade crossings connected therewith, \$215,602.91 for the new general office building, New Haven, and \$143,537.22 for the elimination of grade cross-



ings, exclusive of the double-tracking of the New London division and the four-tracking of the New York division. In addition to the permanent improvements of the year, the construction account has been increased \$6,979,193.04 for the construction and equipment accounts of the New York, Providence & Boston Railroad Company, and \$896,647.07 for the construction and equipment accounts of the Hartford & Connecticut Valley Railroad Company, these two companies having been merged into the New York, New Haven & Hartford Railroad by an exchange of stock. The maintenance of equipment for the past year has cost \$1,706,204.13, and \$1,213,897.57 has been added to the equipment account for the purchase of new equipment, consisting of 37 locomotives, 16 parlor cars, 4 composite cars, 47 passenger coaches, 2 smoking cars, 1 mail car, and 30 box cars, together with floating equipment amounting to \$262,300.00. The gross earnings of the company for the year have been \$18,113,474.38; operating expenses, \$12,405,934.27; net earnings, \$5,707,540.11. The foregoing figures represent the results of operating 830.82 miles of road, and cannot be intelligently compared with last year's figures, which included the operation of only 525.89 miles. However, the various companies comprising this 830.82 miles last year reported gross earnings to be \$16,656,784.74; operating expenses, \$11,337,321.19; net earnings, \$5,320,462.55, which will furnish an approximate comparison of the business of the two years.

#### NEW YORK & NEW ENGLAND RAILROAD.

Eight miles of new steel rails, varying in weight from 75 to 80 lbs. per yard, have been laid in the main track of this road in Connecticut, and the rails displaced by this renewal, in this State and elsewhere, have been laid on the branches over which a lighter traffic passes. On the Melrose branch,  $5\frac{1}{4}$  miles of these light rails have been laid in place of the old steel capped rails, which had outlived their usefulness. On the Norwich & Worcester roads,  $6\frac{1}{2}$  miles of second quality steel rails have been laid, some of them in place of the old chair-joint iron rails between Norwich and Allyn's Point. The old Tyler stub-switches, the best of their kind in the day of stub-switches, are being removed from the Norwich & Worcester line, and pointed switches are being substituted therefor. A new passenger station building has been erected at Moosup, and in compliance with the requirements of

the statute passed by the last General Assembly, one has also been ordered at Packerville. During the past year this company has abandoned the occupancy and use of the union station, so called, in the city of Hartford, and has erected a temporary passenger station building on the west side of its main tracks. Without expressing any opinion as to the causes which led to this step, it can truthfully be said that the change, with all the complications growing out of it, has caused the patrons of the road much inconvenience and annoyance.

The gross earnings of the system for the past year have been \$6,413,061.55, being \$196,444.29 more than for the previous year. The operating expenses have been \$4,512,288.52, and are \$62,462.36 less than for the preceding year, and the net earnings have been \$1,900,773.03, which is \$258,906.65 more than last year. The amount expended for maintenance of way and structures has been \$536,575.28, which is \$932.31 per mile of single track operated, and is only 12 per cent. of the total operating expenses of the year. The number of new ties placed in the track is 178,329, being 309 ties per mile, and the number of tons of new steel rails laid is 4,076, weighing 75 and 80 lbs. per yard. The total number of persons employed by the company, has been 4,545, who have received the sum of \$2,823,821.06 for their services. Of this number, 1,154, or 25 per cent., have been employed in the maintenance of way and structures. The sum expended for the maintenance of equipment has been \$579,144.05, and only \$1,566.70 has been charged to the equipment account. The amount charged to the construction account, for permanent improvements, has been \$326,690.46.

#### PHILADELPHIA, READING & NEW ENGLAND RAILROAD.

A somewhat extended account of the origin of this company was given in our last report. It operates under lease the Hartford & Connecticut Western Railroad, and owns the Poughkeepsie Bridge and its approaches, together with the property formerly belonging to the Central New England and Western Railroad Company, and represents a capital of \$6,600,000, a controlling interest in which is owned by the Philadelphia & Reading Railroad Company. Owing to the financial embarrassments of the Reading system this company has, during the first year of its existence, passed into the hands of a receiver, Mr. James K. O. Sherwood,

who is now operating the road by the appointment of the court and under its direction. On account of the frequent changes in the management and the delays and uncertainties connected therewith, the road and bridges were not, at one time, kept in an entirely satisfactory condition, but during the past summer and fall there has been a gratifying change in this respect, and the improvements already made, contemplated, and arranged for, will put that portion of the property located in Connecticut in a safe and satisfactory condition. The results of the operation of the road for the year ending June 30, 1893, are represented by the following figures: Gross earnings, \$1,023,218.08; operating expenses, \$988,862.44; net earnings, \$34,355.64. The amount expended in the maintenance of way and structures has been \$201,615.57, being \$1,086.27 per mile of single track operated, and constitutes 20 per cent. of the total operating expenses of the year. The number of new ties placed in the track has been 66,958, being 361 ties per mile. The whole number of persons in the employ of the company is 1,062, of which number 363, or 34 per cent., are employed in the maintenance of way and structures. The maintenance of equipment has cost \$137,509.45.

#### NEW LONDON NORTHERN RAILROAD.

*Operated by the Central Vermont Railroad Company.*

During the past year quite extensive improvements have been made in the station facilities at Stafford Springs. A new brick passenger station building has been erected, the station grounds have been enlarged and graded, and the freight tracks have been so re-arranged as to furnish enlarged and more convenient facilities for the transaction of the freight business of that station than those heretofore provided. Several new iron bridges have been substituted for wooden structures at various points on the line, and such repairs and renewals of other wooden bridges as were needed have been made.

The gross earnings of the line for the past year have been \$698,055.32, as compared with \$658,104.96 for the previous year, showing an increase of \$39,950.36. The operating expenses have been \$482,854.41, as against \$417,349.63 for last year, being an increase of \$65,504.78; and the net earnings have been \$215,200.91, being \$25,554.42 less than for the preceding year. The



sum expended for maintenance of way and structures has been \$81,058.42, being \$661.64 per mile, and constituting about 17 per cent. of the total operating expenses. The number of new ties placed in the track has been 36,717, being 303 ties per mile, and the number of steel rails laid is reported as 316. The whole number of persons employed by the company is 640, of whom 144, or 22 per cent. have been employed in the maintenance of way and structures. The maintenance of equipment has cost \$54,295.08, and the sum of \$25,614.79 has been charged to the construction account for permanent improvements.

#### SHEPAUG, LITCHFIELD & NORTHERN RAILROAD.

The mileage operated by this road has been increased during the year by the addition of the Bethel branch, 5.95 miles long, and its trains are now run from Litchfield to Bethel. Some very substantial improvements have been made in the condition of many of the bridges of this line by the erection of masonry foundations upon which iron girders have been placed where wooden structures heretofore existed, and such of the wooden bridges remaining as needed renewing have been put in excellent condition. The amount expended for the maintenance of way and structures has been \$30,011.85, amounting to \$785.03 per mile operated, and constituting about 45 per cent. of the total operating expenses. The number of new ties placed in the track is 6,327, amounting to only 165 per mile, and 204 tons of new steel rails have been laid. The total number of employes is 74, of which number 46 or 62 per cent. have been employed in the maintenance of way and structures. The amount expended for maintenance of equipment has been \$8,069.16. The gross earnings have been \$69,474.16 as compared with \$65,614.64 for the previous year, the operating expenses have been \$66,135.29 as against \$59,060.46 last year, and the net earnings are \$3,338.87, while the net earnings of the previous year were \$6,554.18.

#### SOUTH MANCHESTER RAILROAD.

The condition of this road in all respects shows evidence of the same watchful care and prudent management which we have heretofore had occasion to commend. The gross earnings for the past year have been \$19,932.05, being \$907.15 more than the pre-

ceding year, while the operating expenses have been \$17,892.30, being \$4,561.28 in excess of the previous year, and the net earnings have been \$2,039.75 as against \$5,693.88 last year. The amount expended for maintenance of way and structures is \$4,354.78, which is \$1,935.46 per mile, and constitutes 24 per cent. of the operating expenses of the year. The number of new ties laid has been 395, being 175 per mile, and 11 tons of steel rails have been placed in the track. The number of employes are 14, of which number 4 are employed in the maintenance of way and structures.

#### RIDGEFIELD & NEW YORK RAILROAD.

There is no change to be reported in the prospects of this road.

#### DANBURY & STATE LINE RAILROAD.

As elsewhere stated, this road has been located during the past year, and its location has been approved ; but so far as we are informed its construction has not been commenced.

### PROCEEDINGS OF THE BOARD.

An unusually large number of hearings have been held by the Board during the year, by far the larger number being connected with the work of the New York, New Haven & Hartford Railroad Company in four-tracking the New York & New Haven Division and double-tracking its New London Division.

#### HIGHWAY CROSSINGS.

Orders have been made for the elimination of some thirty-five grade crossings. In most instances the parties concerned were practically agreed as to the plan proposed, but in several instances opinions were much divided, and repeated hearings have been held.

#### THOMPSONVILLE.

A petition having been brought by the Selectmen of Enfield, providing for the elimination of all the four grade crossings in Thompsonville, by carrying Main Street under the tracks, closing

three other crossings, and the construction of a new highway parallel with the railroad, upon terms agreed upon between the town and company, an order was made by us in conformity with this agreement on the 1st of February, and the work has been finished in a very satisfactory manner.

#### NEWTOWN.

Upon the application of the Selectmen of Newtown, referred to in our last report, asking us to order that two highways, crossing both the Housatonic and New York & New England Railroads at grade, be closed and carried by a connecting highway under the tracks of both roads, several hearings were had and an order finally passed on the first of February directing the work to be done, and apportioning the expense one-fourth to the town and three-eighths to the New York & New England and to the New York, New Haven & Hartford Railroad Companies respectively. From this order the New York & New England appealed, and the matter is still pending.

#### WINDSOR.

The Selectmen of Windsor brought a petition on the sixth of April, asking for the elimination of the grade crossing of the New York, New Haven & Hartford Railroad and the highway in said town leading from Broad Street to the Island, so called, but after one hearing the application was withdrawn and no order made.

These were the only cases in which the applications were brought by the towns. All the other applications acted upon were brought by the New York, New Haven & Hartford Railroad Company in regard to crossings on the two divisions above named and included all the grade crossings in the towns named which had not previously been ordered changed.

#### GREENWICH.

On the 17th of May an order was passed providing for the elimination of Mead's Lane crossing by carrying it over the track in the existing line of the highway, and on the 24th of July orders were passed providing for carrying the highway near Riverside over the tracks at a point a little easterly of the existing grade crossing; for carrying Sound Beach Avenue under the tracks in its existing line, and for carrying the highway about one-half mile east of Sound Beach also under the tracks in its present line.



## DARIEN.

On the 17th of June four several orders were made, one directing the highway at the station carried under the tracks in its existing location, one closing the highway next east of the station and connecting it with the last-named highway by new highways to be constructed on each side of the railroad; one for carrying LeRoy Street under the railroad in its existing location, and one for carrying the highway about a mile west of Rowayton in like manner under the tracks.

## NORWALK.

On the same day orders were issued directing the highway near Rowayton Station to be carried under the tracks without change of location, and also directing Roton Hill road carried over the tracks in the existing line of the highway.

## STRATFORD.

The question of what changes, if any, should be made as to the crossings in Stratford, had been before us on petitions from the railroad company since June, 1887. Finally, on the 18th of May last an order was made directing the highway known as Tea Party Lane, situated about a half mile east of the station carried over the tracks, and on the 26th of May orders were issued directing Main Street in the village carried under the tracks for sixty-five feet of its width, also directing Harris Lane to be closed and that it be connected with Main Street by a new way for foot passengers on the north side of the railroad. It was also ordered that King Street and Old Mill Road be carried under the railroad without change of location.

## MILFORD.

On the 17th of June orders were issued for the elimination of six crossings in this town, Gulf and High Streets in the village of Milford to be carried under the tracks, Curtiss Street to be closed at the railroad and connected with Gulf Street by a new highway to be built on the south side of the railroad; the second crossing west of the station to be moved about one hundred feet westerly and the highway also carried under the tracks. Baldwin's crossing was ordered closed on the line of the railroad, and the highway carried over the tracks at a point about six hundred feet easterly

of the former grade crossing. It was also ordered that the second highway crossing east of the Naugatuck Railroad Junction be changed by carrying the highway over the railroad. On the 24th of July the only remaining grade crossing of the New York, New Haven & Hartford Railroad in Milford, being the one at said Junction, was ordered to be eliminated by carrying the highway over the tracks.

#### ORANGE.

Petitions for the removal of the only two grade crossings in West Haven, in the town of Orange, were brought early in July, one asking that we order Washington Avenue carried under the railroad and the other asking that Union Street be closed on the lines of the railroad and that it be connected with Washington Avenue by new streets to be opened on both sides of the railroad. The proposed change of Union Street was strongly opposed by many of the citizens, and several hearings were had on the matter. The matter is as yet undecided.

#### BRIDGEPORT, NORWALK, AND STAMFORD.

No applications have as yet been made in regard to the many grade crossings in Bridgeport, or those in Stamford, or the two at Norwalk Station, but with these exceptions all the grade crossings on the line from New Haven to New York State line have either already been changed or their elimination ordered, all of the expense of recent years having been borne by the railroad company. This is true of course also in regard to the recent changes ordered on the New London Division; four orders only have been issued during the past year in regard to crossings on this division.

#### LYME.

Previous orders had provided for the elimination of all the crossings in this town except two, and on the 29th of March orders were made as to these, that at Slate's crossing being changed by carrying the highway over the railroad at a point about one hundred feet easterly of the former crossing, and the highway at Armstrong's crossing being carried under the tracks.

#### OLD SAYBROOK.

Two more crossings in this town have been changed, the highway at Bushnell's crossing having been carried over the tracks

in pursuance of an order issued on the 29th of March, and that at King's crossing carried under the tracks in accordance with an order made on the 13th of May.

#### COST OF CHANGES.

It will be remembered that the law in regard to the apportionment of the expenses arising from the elimination of grade crossings has been materially changed from what it was when work of this character was begun. The first act providing for the removal of grade crossings authorized applications therefor to be brought by the selectmen of the towns, or the directors of the railroad company and the Commissioners apportioned the expense as they judged proper. In 1883 the Commissioners were empowered to institute proceedings for alterations in crossings and apportion the expense, provided that in no case should more than one-half the expense be paid by the town, city, or borough. In 1889 the law was still further changed in this respect so as to provide that when the directors of a railroad company applied for the elimination of a crossing, the company should pay the entire expense, but if the petition was brought by the municipal authorities, the municipality should pay one-fourth of the expense when the railroad had been laid out at grade with the highway and not exceeding one-half the expense if the highway had been constructed at grade across the railroad. The same act provided that in certain cases the expense of the alteration should be paid by the state and railroad company without any cost to the municipality. The last General Assembly passed an act providing that the state should reimburse the towns and cities for all expenses incurred since May 1, 1885, for the removal of grade crossings under proceedings instituted by the railroad companies. Applications for reimbursement under this law have already been made by nine towns and boroughs for sums amounting in all to \$26,028.80, which has been paid.

#### WATER STREET, NEW HAVEN.

The Commissioners being of opinion that public safety required alterations in the Water Street and Long Wharf crossings of the New York, New Haven & Hartford railroad in New Haven, and neither the city nor company having brought any appli-



cations therefor, we instituted proceedings under the provisions of the act of 1889, permitting us to do so, and on the 15th of April ordered said company within two years from the date of the order to eliminate both crossings by carrying Water Street over the railroad and closing Long Wharf between the southerly line of State Street and the westerly line of Brewery Street, and pursuant to the provisions of the law assessed one-fourth of the expense upon the State and three-fourths upon the company.

#### BRISTOL.

It will be remembered that at the time of our last report the appeal taken by the New York & New England Railroad Company from our order requiring it to carry Main Street in Bristol under the railroad was pending in the Supreme Court. The order was made under the provisions of the law of 1889, that in case the directors of any railroad company failed to remove or apply for the removal of at least one grade crossing each year for every sixty miles of their road, we should order such removal, if we thought the financial condition of the company so warranted. The case was decided on the 6th of March, the Court sustained the order, deciding that the statute operates as an amendment of the charter of each of the railroad corporations affected by it; that as grade crossings are in the nature of nuisances the legislature has a right to cause them to be abated, and to require either party to pay the whole or any portion of the expense; that the statute is not unconstitutional because it authorizes the railroad commissioners to determine their own jurisdiction; besides which the right of appeal saves the railroad companies from any harm from our findings; that the railroad commissioners were proper parties defendant to an appeal taken from an order made by them under the statute, that it is the settled policy of the State to abolish grade crossings as rapidly as can reasonably be done, and that all general laws and police regulations affecting corporations are binding upon them without their assent. We give the full case as reported on pages 49-80 of the appendix, the opinion being by the Chief Justice, and will amply repay perusal by all interested in the matter of removal of grade crossings and the policy of our State in that regard. The railroad company, however, has taken the case to the United States Supreme Court so that the crossing continues

unchanged, and we have taken no further action in any other case under the provision of the law in question. The briefs of counsel as prepared for the trial in the Supreme Court will be found in the appendix, pages 69-80.

#### ELEVATION OF BRIDGES OVER RAILROADS.

The last legislature authorized railroad companies to raise any highway bridges which pass over their tracks to such height as might be approved by us. Only one such application has been made to us under the law, which was for raising the bridge at First Avenue in West Haven. The necessary notices were issued and hearing had, and on the 24th of July our approval was given for raising the bridge not exceeding eight feet.

#### SIDE TRACKS ACROSS HIGHWAYS.

The only application for permission to lay a side track across a highway was that of the selectmen of Plainville, brought on the 27th day of November, 1893, asking that the New York & New England Railroad Company might be allowed to lay a side track across the New Britain and Plainville highway. A hearing was had, the location examined on the 14th day of December, and authority granted under certain restrictions.

### GRADE CROSSINGS OF RAILROADS BY HORSE AND ELECTRIC ROADS.

#### BRIDGEPORT.

The first hearing had by us was under the special act approved May 25, 1893, by which the Bridgeport Horse Railroad Company, whose tracks crossed the Housatonic Railroad at East Washington Avenue, was allowed to transfer its tracks to Congress Street, subject to such regulations and restrictions as we might order, and also subject to the further provision that the horse railroad company should be solely responsible for all accidents at the crossing in consequence of the tracks crossing at grade. Our duties in this case were confined to prescribing regulations and restrictions, and we ordered that the crossing should be constructed and maintained by the Horse Railroad Company so as not in any manner to interfere with the continuous

lines of rails of the steam road ; that the conductor of the horse car before permitting it to cross should cause it to be brought to a full stop, and himself go upon the crossing and ascertain that no train was approaching and within sight, and that all the horse cars, running on that route, should be supplied with red flags and lanterns to be used by the conductors to warn approaching trains whenever necessary.

#### YANTIC.

The second hearing was on the application of the Norwich Street Railroad for leave to cross the New London Northern Railroad between Norwich and Yantic. Having no power to impose any regulations or restrictions, but the street railroad company being willing to adopt any which we might suggest, an agreement was made between the two companies providing for the erection of a semaphore signal by the street railroad company on the line of the steam railroad one thousand feet from the crossing on the south, it being judged that none was needed on the north, and that before crossing, the street car should stop and the conductor go upon the track at the crossing, set the signal, and remaining there till the street car had crossed, again lower the signal. The street railroad company also agreeing to be responsible for all damages arising from non-compliance with the conditions, and also agreeing to comply with all orders or recommendations we might think required by public safety. The agreement having been incorporated into the application, we gave our approval to the crossing.

#### NEW BRITAIN.

In the mean time an application had been brought by the New Britain Tramway Company for approval of crossing of tracks of New Britain branch of New York, New Haven & Hartford Railroad at Chestnut street. In this case the petitioner filed its agreement to equip its cars with signal flags and lanterns, to cause all its cars to come to full stop before crossing, its conductors to go upon the crossing with the flag or lantern and remain till the car had crossed ; and further agreeing to discontinue the crossing should we thereafter be of opinion that it ought not to be allowed. Under the circumstances the crossing was allowed.

## BRIDGEPORT TRACTION COMPANY.

Under the provisions of the resolution of the last General Assembly elsewhere referred to, the Bridgeport Traction Company made application to us for permission to construct its tracks at grade across the tracks of the New York, New Haven & Hartford Railroad Company at Fairfield avenue immediately south of and adjoining the Bridgeport station; the application was subsequently amended so as to set forth its right to so cross, under such regulations as we should impose, and asking that we prescribe the same. Owing to the great danger at this point we should have felt it our duty to refuse our approval of the crossing had it been in our power to do so, but as the Legislature had itself granted the right to cross, we could only prescribe such regulations and restrictions as we thought adapted to the situation, which we accordingly did. A temporary injunction has been obtained by the New York, New Haven & Hartford Railroad Company against the construction of the crossing.

## DANBURY.

The Danbury & Bethel Horse Railroad Company desiring to lay its rails across the New York & New England Railroad at White street in Danbury brought its petition to us in July, 1890, asking our approval of such crossing, but we, being of opinion that such crossing was prohibited by the law of 1889, declined to give our approval, and the company therefore laid its tracks through White street on each side of the railroad and so operated its road, its patrons changing cars at the crossing. The act of 1889 having been amended as heretofore stated, the company brought its petition on the 29th of September, again asking our approval for the construction of its road at grade across the steam road. The practical question was, whether public safety would be best subserved by still requiring the passengers to change cars and make the crossing on foot among horses and vehicles, or by permitting the grade crossing of the two railroads. We thought proper to allow the crossing to be made, and as we had no power to impose any conditions or regulations we made such recommendations as we thought public safety required.



## NEW HAVEN.

Two applications of this character in regard to crossings in New Haven have been made to us. The first was by the Fair Haven & Westville Horse Railroad Company. This company has for many years operated its road with a single track, crossing the freight branch of the New York, New Haven & Hartford Railroad Company at Bridge street. On the 26th of August it brought its application for approval of its laying a second track at the crossing. This application was contested more strenuously than any heard by us, and as the position taken and claims made by the steam railroad company very fully appeared in the papers filed in the case, we give the application and finding in full in the appendix, page 92. As will appear therein we thought there would be less danger with a second track and therefore gave our approval for its construction.

The other application was by the State Street Horse Railroad Company for our approval of its crossing the tracks of the Shore Line Railway in New Haven at grade, under certain proposed restrictions. It appearing, however, that the Legislature had itself granted the right and imposed the condition, we declined to take any action in the matter.

## WALLINGFORD.

The last Legislature amended the charter of the Meriden Horse Railroad Company so as to permit it to use such "motive power or motor, except steam power, as may seem proper and necessary to the directors of said corporation," and also authorized it to construct its railroad over various routes and along and upon sundry streets and highways, including Quinnipiac street, to Center street in Wallingford. Such construction involved the crossing of the double tracks of the Hartford Division of the New York, New Haven & Hartford Railroad Company at Wallingford station. Accordingly an application was brought by the street railroad company on the 15th of November last asking us to approve of such crossing at grade. This application was heard on the first of December, and has since been continued from time to time by agreement of parties, and is still pending.

## GATES, FLAGMEN, AND SIGNALS.

The elimination of the more dangerous crossings of course lessens the number at which the protection by gates or flagmen are

needed, but we find that when such protection is ordered at any crossing it is frequently followed by an application from some town adjoining or near by for like protection, and we are invariably told that the particular crossing in question "is probably the most dangerous in the State."

#### KILLINGLY.

In accordance with the instructions voted at a town meeting the selectmen of Killingly applied to us for an order requiring the New York & New England Railroad Company to erect gates at the Main street crossings of the Norwich & Worcester Railroad in the adjoining villages of Danielsonville and Dayville. This petition was heard on the 27th of January, the gates ordered, and they have since been erected.

#### WINDSOR.

The Selectmen of Windsor brought a petition dated the 6th of April asking that we require the New York, New Haven & Hartford Railroad Company to maintain gates at the crossing of the Windsor Locks road. One hearing was had by us on the petition, after which we were requested by the Selectmen to suspend further action.

#### NEW HAVEN.

On petition of the city of New Haven we have ordered flagmen stationed at the Atwater street, Clinton avenue, and Pine street crossings of the New London Division of the New York, New Haven & Hartford Railroad.

#### NAUGATUCK.

On petition of the borough authorities of Naugatuck we ordered gates erected at Rubber avenue and Water Street crossings of the Naugatuck Railroad, but declined to order their erection at the Union City crossing.

#### NEW LONDON.

On the 31st of July the mayor and common council of New London petitioned for an order requiring gates at the crossings on each side of the Union station at that place. At the hearing it appeared that the crossing on the north of the station was not a highway, but an order was passed directing the New York, New Haven & Hartford Railroad Company to erect gates at the crossing

to Groton ferry. Subsequently, it having been made to appear to us that there was no legal highway at that point, our order was changed to a recommendation, but the recommendation has not been complied with.

#### STONINGTON.

On petition of the Selectmen of Stonington and after a hearing, an order was issued on the 8th of November requiring the New York, New Haven & Hartford Railroad Company to erect gates at the Palmer street crossing in the village of Pawcatuck, in place of the electric signals erected pursuant to an order from us several years since.

#### SOUTHINGTON.

On the 18th of August the Selectmen of Southington asked that we order gates to be erected at Center street in place of the signals heretofore ordered. A hearing was had and an order made on the 26th of September.

#### PLAINVILLE.

A like application was made by the Selectmen of Plainville on the 18th of October, which was heard in part on the 8th of November, and has since been continued from time to time by agreement of both parties and is still pending.

#### FENCES.

The only applications for fences received during the year were in regard to those on the line of the old Connecticut Western, operated by the Philadelphia, Reading & New England. Orders were made as requested and the fences have been erected.

#### CATTLE GUARDS.

Fifteen applications have been received from the New York, New Haven & Hartford Railroad Company asking us to examine into the propriety and necessity of maintaining cattle-guards at various places on the several divisions of its railroad. Examinations were made and orders passed declaring them unnecessary at all places where it appeared to us they would increase the liability to accident rather than add to safety.

## LANDS FOR ADDITIONAL TRACKS AND DEPOT GROUNDS.

Thirty or more applications for our approval to the taking of additional land for railroad purposes have been received and acted upon during the year. All but one of these applications were connected with the four-track work of the New York, New Haven & Hartford Railroad. In very few of them was there serious opposition, and in none did any new question of law arise.

## STATIONS AND DEPOTS, OLD AND NEW.

The only instance during the year in which we have been asked to give our approval to the abandonment of a railroad station was the request of some hundred citizens of New London County, asking that the existing stations of Lyme and Black Hall on the New London division of the New York, New Haven & Hartford Railroad might be abandoned and a new one erected at an intermediate point. This is the first instance we have ever known where such a request came from the people using a station, but on the contrary we never knew but one instance where such request was not opposed by people in the neighborhood. The railroad company took no active part in the hearing, expressing its willingness either to continue the two stations or to consolidate them into one as might be thought best. After a full hearing, we were of opinion that there was neither such urgent requirement of public interest, nor so great preponderance of local demand, as in our opinion was necessary to justify the change of a station where business interests have become centered around the old location, and patrons of the railroad have adjusted their arrangements thereto. We therefore felt obliged to decline the request.

## SOUTHPORT.

It being claimed that the approaches to the station at Southport for West-bound trains were not such as required by law, a hearing and examination were had by us upon the petition of the Selectmen, and on the 4th of May an order was made by us requiring the railroad company to provide, to our approval, such approach within forty-five days, and the approach has been constructed. Complaint was also made to us that the platform accommodations at the East-bound station were insufficient, and recommendations were made by us regarding the same, but nothing has yet been done by the company towards carrying out the recommendations.



## CAMPVILLE.

The depot at this station on the Naugatuck railroad, having become badly out of repair, an examination was made by us at request of persons using the station, and recommendations made for its thorough repair or rebuilding, but on the fourth of July, soon after our examination, the building was burned, and as yet no new one has been built.

## MOOSUP AND PACKERVILLE.

An act was passed by the last Legislature providing that whenever a railroad company should neglect to rebuild or repair within a reasonable time, any freight or passenger station on its road, which should be destroyed or materially damaged, we should make such order regarding the rebuilding or repairing as we should deem just and proper. We have been called upon to take action under this statute in two instances, both in regard to stations on the Providence Division of the New York & New England. The first was upon the representation of citizens of Moosup and vicinity, setting out that the passenger and freight building at that station were burned about July 21, 1892, and had not been rebuilt. Upon this application an order was made on the 26th of June directing the building of a passenger and freight depot in accordance with a plan prepared by the company, and the depot is now in use.

The other was upon the petition of citizens of Packerville and vicinity, dated the 18th day of June, representing that the building used for a depot at that station had been destroyed by fire a year previous, and no accommodations had been provided since. On this application an order was made on the 7th of August requiring the construction of a depot within ninety days. Plans have been prepared, but the depot has not yet been built.

## HARTFORD.

As is generally known, the new depot at Hartford, which the separation of grades at Asylum Street made necessary, was built by the New York, New Haven & Hartford Railroad Company at its own expense, but was so constructed as to be adapted for the joint use of that company and the New York & New England, and was so used from its opening, May 5, 1889, till the 31st of May last, at which time the latter company, having provided its own accommo-

dations, withdrew from the use of the other, but its patrons still continued to make use of the waiting room of the New York, New Haven & Hartford Company. To prevent this, that company resorted to measures which were complained of by the traveling public, and resulted in a hearing before us and such recommendations by us as we believed would preserve the just rights of the company and at the same time afford reasonable accommodations to the public. These recommendations have in part been complied with, but the doors are still kept locked at times to the great annoyance, inconvenience, and delay of travelers. The proceedings will be found in the appendix, page 102.

#### DELAYED TRAINS.

An act was passed by the last Legislature intended to secure for persons waiting at railroad stations information as to the cause of the detention of delayed trains and the probable time of arrival. It provided that whenever requested in the prescribed manner we should "issue an order commanding the railroad company owning such station to bulletin the arrival and departure of all trains over ten minutes late, together with a statement of the cause of the delay of said trains." Two applications have been made to us under the statute, and, as it is mandatory, the orders were, of course, issued, although it seemed to us that a compliance with the orders, which necessarily were in the language of the statute, would not afford the information desired, as the law does not require the companies to bulletin the *probable* time at which delayed trains will arrive and depart, but "the arrival and departure" of such trains, which, of course, cannot be done until they have arrived and departed respectively. The first order applied to the Bristol station of the New York & New England Railroad Company, and the second to the New Britain station, which, while used by the New York & New England, is also used and owned by the New York, New Haven & Hartford, being the terminal station of its New Britain branch, from Berlin to New Britain, three miles in length. The law requires the order to be made upon the company owning the station, so that in the New Britain case it was made upon the New York, New Haven & Hartford, although the complaint was in regard to trains on the New York & New England. Neither order has been complied with, and the neglect has been reported to the State Treasurer, as the penalty for such neglect is payable to the State.

## BRIDGES OVER RAILROADS.

An application involving an important question of law, never decided in this State, was brought by the town of Ansonia on the 17th of May. In the year 1870 the town of Derby, of which Ansonia was then a part, built a bridge over the Naugatuck River and railroad and over the New Haven & Derby Railroad, with a height of about sixteen feet above the Naugatuck and seventeen feet above the Derby. This bridge being carried away by a flood in 1873, was rebuilt at the same height. The second bridge was burned in April, 1892, and an iron bridge erected in its place also at the same original elevation. The railroad companies claimed that the statute passed in 1871, providing that the bottom timbers of all bridges thereafter constructed over any railroad track should not be less than eighteen feet above the rails, unless a less height was prescribed by us, applied to the rebuilding of bridges as well as to their original construction, and therefore governed this case, and proceedings had been begun in the courts to compel the town to raise the bridge. The town therefore brought its petition asking us to prescribe such height less than eighteen feet as would permit the bridge to remain as constructed.

The parties were fully heard in the matter, and we were of opinion that the bridge, having been already constructed, the question had passed from our jurisdiction into that of the courts. It has been, so far as we know, the universal practice to rebuild bridges over railroads at the same original elevation as when first constructed, but the letter of the statute is opposed to the practice, and as the object of the law was the protection of brakemen, it would, in principle, apply equally to the rebuilding of bridges as to their first construction. But before our decision was announced the parties came to an agreement, and the proceedings before us and in the courts were withdrawn, and all questions raised were left undecided. The statute of 1893, above referred to, does not affect the right to rebuild at the original elevation, but it would permit a railroad company, if it thought it necessary, to raise the bridge at its own expense, provided the Commissioners approved; but that statute does forbid a company doing what had been done at this bridge, and we presume at others, to wit, so raising the grade of its tracks as to lessen the clear space between the track and bridge, unless the approval of the Commissioners was first obtained.

## POWERS IN MATTERS ALREADY ADJUDICATED.

The Commissioners having no common law powers, and their jurisdiction being confined to such matters as the Legislature has expressly conferred upon them, it follows that when they have once discharged a specific duty, or exercised a specific power conferred upon them, their control over the subject-matter is at an end. We have held this principle applicable to cases where in carrying a railroad over a highway or a new highway under the railroad the width between the abutments has been fixed by the order. This view has been recognized by the Legislature in two resolutions passed at the last session, one giving us full power and jurisdiction, on application of the Selectmen of New Haven, to determine whether the width between the abutments of the bridge at North Quinpiac Street, under the new location of the New London Division of the New York, New Haven & Hartford Railroad, should remain forty feet, as heretofore ordered, or be increased. An application was brought under this resolution, and an order passed making the space fifty feet, instead of forty. The other authorized us, on petition of the Selectmen of West Hartford, to order such alterations in the bridge, tracks, and abutments at the Elmwood crossing of the New York, New Haven & Hartford and the New York & New England railroads as we might judge necessary for public safety and convenience, and to determine and direct by whom such alterations should be made, at whose expense, and within what time. No application has yet been made under the resolution.

## HIGHWAY UNDER RAILROAD.

The only application to determine whether a proposed highway should pass under or over the railroad it was to cross was by the city of Rockville. The application had reference to the same highway which we directed carried under the Rockville railroad in July, 1892. The highway as then proposed had been abandoned and laid out on a new location. The statute provides that the company operating the railroad over or under which the highway is to cross shall construct such crossing, the expense being divided equally; but the New York & New England Railroad Company pleaded to the jurisdiction of the Commissioners, denying that its railroad, or that any branch thereof, was within the city of Rockville, or that the proposed highway crossed a branch of its rail-



road, asked that the petition be dismissed. It did not, however, deny that it operated the railroad crossed by the proposed highway, and an order was passed directing that the highway pass under the railroad.

#### PLAINVILLE.

Under the statute authorizing us to make orders regulating the obstruction of streets and highways by railroad locomotives and cars, an order was made on the 13th of May, on application from the Selectmen of Plainville, in addition to the order made September 11, 1883, forbidding the New York & New England Railroad Company to allow its engines and cars at any time to stand upon any portion of the highway known as East Main Street for a longer period than three minutes, and requiring that whenever it should be necessary for the company to obstruct the crossing for a longer period, it should, after having occupied it for the three minutes, cause it to be unobstructed for its entire width for a time sufficient to allow all persons waiting to cross to do so. So far as we are informed those orders have been complied with, and no complaint has since been made to us of the obstruction of the crossing.

#### DRAW-BRIDGES.

The New York, New Haven & Hartford Railroad Company having equipped the draw-bridges across the Connecticut River at Saybrook and across Shaw's Cove at New London, on its New London Division, with interlocking signals and derailing switches, we were of opinion that these draw-bridges might be crossed consistently with public safety without requiring the trains to first stop, and accordingly permission so to do was granted, provided the speed of all trains be reduced after passing the distance signal and before passing the home signal to not exceeding fifteen miles an hour.

All permissions to cross draw-bridges without first stopping have contained like provisions restricting the speed of trains, but we had observed an increasing disregard of these limitations, until such disregard had become practically universal. We accordingly addressed a communication to the railroad company calling attention to this neglect, and adding that unless the limitations were

observed we should regard it our duty to withdraw the permissions. This was followed by stringent orders by the company and a decided reduction in speed.

#### PRIVATE AND FARM CROSSINGS.

Private crossings as affecting safety in traveling on railroads have not received that consideration by legislatures in the past that their importance demanded. In proportion to the travel upon them, they are far more dangerous than grade crossings of highways, and we therefore regard the act on this subject passed at the last session of our legislature as most timely. Heretofore there was no manner in which they could be removed except by paying whatever might be demanded, and, in fact, what legislation there had been on that subject was calculated and intended to make their removal as difficult as possible. We were never able to see any principle upon which such action could be sustained. Our highest court has said that the established doctrine, as declared by a general consensus of authority, is that, "in view of the responsibility of railroad companies for safely carrying persons and property, and the great hazard to human life and property from obstructions on the track, the power to exclude any one from the railroad limits must be left as a matter of law absolutely with the officers of the company, who are immediately responsible, subject only to such state supervision as may be deemed expedient." The right to cross a railroad track from one piece of land to another can in the nature of things be no more sacred than the right to the land itself, and the power to take the former by condemnation is no more arbitrary than the like power to take the land, against which no one contends. And if, as our courts have decided, streets and highways may be taken in cases where lands not devoted to such uses might be taken, there certainly is no principle which should prevent the taking of farm or private crossings or other easements when required by public safety. The act of 1893, therefore, is in direct accordance with the doctrines of our courts and permits the taking by condemnation, when in the opinion of the Railroad Commissioners public safety so requires, of any private crossing at grade of the tracks of any railroad company or of any right, title, interest, easement, or privilege in land used by any railroad company for railroad purposes. The same act authorizes the Commissioners, under certain circumstances, to lay out a highway in place of the private

way, and also empowers the Commissioners to order the elimination of any private crossing at grade by the substitution of an overhead or underneath crossing, at the expense of the railroad company. In the future, therefore, there is nothing to prevent the railroad companies in this State from securing a track absolutely free from the dangers of grade crossings, either by public streets and highways or by private ways, except the inability of a company to pay the cost of their removal.

#### STEEL RAILS.

It is now twenty-five years since steel rails first began to be used on the railroads of this State. The rolling of such rails had then but recently been attempted, and if we are not mistaken the cost of those first laid was \$172.00 per ton. Most of the rails used in that, and for the next few years being of foreign make. In 1868 the total production in this country was less than three per cent. of the amount imported from Great Britain, and it was not till 1874 that the quantity here produced exceeded the amount imported, but last year the quantity imported was only a little more than two one-hundredths of one per cent. of the amount produced, and in 1878 only nine tons were imported. The price of steel rails has in the mean time fallen till quotations were made last month so low as \$21.00 per ton, and it is believed sales were made so low as \$17.00, and the average for 1893 was probably below \$29.00. The very low price of rails has led railroad men to consider whether a return to the use of heavy rails would not be desirable in view of the increased weight of engines and cars. A few years ago experiments seemed to indicate that a rail of about 66 pounds to the yard was the most satisfactory, but now 100 pounds to the yard is a common weight on our roads with heavy traffic. What this reduction in price of rails means to our railroads will appear when we recall that 100 pounds per yard rails for ten miles at the average price in 1868, would have cost over \$250,000.00, while at the average in 1893 the cost was less than \$45,000.00; or if we take the two extreme prices named, we should have a cost of \$270,000.00 in the one case and \$27,000.00 in the other. The experiment of using longer rails has not been tried in Connecticut but has been elsewhere, notably on the Norfolk & Western where at least two kinds of sixty foot rails have been laid for sufficient distances to afford full tests. The object of

course is to lessen the number of joints, thereby improving the riding of the track and lessening expense and trouble of maintenance. The results will be awaited with interest.

#### IRON BRIDGES.

We have from time to time spoken with satisfaction of the increasing substitution of iron bridges for those of wood, and still more favorably of the occasional building of stone bridges. It is, therefore, with surprise that we have read the statement from a German scientific paper that in Germany iron railroad bridges are always preferred to stone, the explanation given, being that it is almost impossible to detect defects in stone bridges. We do not know upon what data this conclusion is based and cannot but believe that where the conditions are favorable for the construction of stone arches, they will prove the most enduring of all bridge structures. The same article speaks of the danger to iron bridges from rust eating into the iron around the rivets, and says that two iron railway bridges on the continent have failed during the year and one in England the previous year. It would, however, appear from the context that all of those failures were of bridges with cast-iron members, and we are happy to say that we have no such bridges in this State.

#### METAL TIES.

It is now some sixteen years since experiments began in Europe and India in the use of metal ties, and their use has now become common on the continent, and nearly universal in India and Mexico. Very great improvement has been made in their construction, and though the Pennsylvania Railroad Company has, we believe, entirely abandoned their use after trial, we think it would be good management for our companies having the heaviest traffic to make trial of them. The first cost is, of course, greater than that of wooden ties, being three or four times the cost in this State; but European experiments have demonstrated that the life of the metallic tie is from four to five times that of wood, while the cost of repairs and maintenance of track where metal ties were used has been about 34 per cent. less than where wood is used. Should trial show the same to be true in this State, there would be no question as to the utility of the metal tie.



## INTERCHANGEABLE MILEAGE TICKETS.

It will be remembered that the agitation to secure the issuing of mileage tickets, which should be accepted on all railroads, culminated, so far as New England was concerned, in the passage of an act by the Massachusetts Legislature, which went into effect on the 1st of October, 1892, requiring every railroad company, operating in that State, except such as might be exempted by the Railroad Commissioners, to sell for twenty dollars mileage tickets representing one thousand miles, which should be received for fare on all railroads in the State upon the same conditions as on the road of the company issuing them. The railroad companies claimed the act to be unconstitutional, and declined to comply with its provisions. The Attorney-General thereupon instituted proceedings against the leading companies to test the validity of the law, and in November last the Supreme Court handed down its decision in the proceedings against the Old Colony Railroad Company, declaring the act unconstitutional. The decision was by a divided court, three to two. A majority say that the most formidable objections to the statute are that it authorizes one railroad to determine the conditions on which another railroad must carry passengers, and compels one railroad to carry passengers on the credit of another, and decides that the delivery of a mileage ticket issued by another corporation is not in itself a payment of the fare; and goes on to say that although by reason of the public nature of the employment the Legislature can establish the rates of fare to be demanded by common carriers of passengers, the Court does not see that the companies can be compelled to take in payment anything which any other person could not be compelled to take in payment for a service rendered or in discharge of a debt. This decision is important as indicative of the limitations resting upon our Legislatures, and as applying to corporations the same principles of law as govern individuals. The questions involved in the decision are of interest to us not only as affecting travelers generally, but also because nearly one-half of the miles of railroad in Massachusetts are operated by companies reporting to us. As an illustration, however, of how the principle of interchangeable mileage tickets can be applied when the government owns and operates the railroads, we notice the new plan of tickets just introduced in Hungary, where the government sells railway stamps in the same manner as postage stamps, and supplies blank cards, the passenger

making out his own ticket, wherever he wishes to travel, by writing on the card the names of the stations from and to which he desires to ride, and affixes as many stamps as is called for by the published list of fares.

#### ASYLUM STREET BRIDGE COMMISSION.

The separation of grades at Asylum Street in Hartford has proved profitable both as an object-lesson and in determining the power both of the legislature and of commissions appointed by it, and its usefulness in this respect does not seem to be ended yet, though nearly ten years have passed since proceedings were commenced. At the date of our last report an appeal was pending in our Supreme Court from the decision of the Superior Court refusing to issue a writ of mandamus requiring us to inquire into the merits of certain claims for damages presented by the New York & New England road and rejected by the commission. The record in the case was given last year, but the case was not decided till May. The opinion was by Judge Fenn, Judge Carpenter alone dissenting. The Court held that the grant of power to the commission, subject only to a limitation as to the portion of expense to be assessed on the city, was plenary and in the most explicit terms, and that the duties to be performed were such as in the highest degree to call for the exercise of judgment and discretion. That by the act the items which the commission was to consider were only those of the expense of the work, not of the speculative and incidental damages resulting from the change made. That if the items claimed were such as the commission might consider and in its judgment allow, yet the legislature had left the matter to the sound judgment and discretion of the commission, and its conclusion, in the exercise of its judgment upon the claim, could not be reviewed, and that as it did not appear whether the commission disallowed the claim because it thought such a course fair and just to all parties, or because it regarded the claim as beyond its jurisdiction, it would be presumed that the former was the case. The decision in full will be found on pages 107-116 of the appendix. The matter, however, is not finally disposed of as the railroad company has taken it to the Supreme Court of the United States.

GEO. M. WOODRUFF,	} <i>Railroad</i>	
WM. O. SEYMOUR,		} <i>Commissioners.</i>
ALEX. C. ROBERTSON,		

HARTFORD, Dec. 30, 1893.

## APPENDIX.

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### THE NEW YORK & NEW ENGLAND RAILROAD COMPANY'S APPEAL FROM RAILROAD COMMISSIONERS.

(Hartford District, January T., 1893. Andrews, *C. J.*, Carpenter, Torrance, Fenn, and Prentice, *Justices.*)

Appeal of the New York & New England Railroad Company from an order of the Railroad Commissioners requiring the company to remove a grade-crossing in the town of Bristol; taken to the Superior Court in the county of Hartford, and heard before *F. B. Hall, J.* The Railroad Commissioners were made respondents, with the town of Bristol and sundry land owners. Facts found and judgment rendered for the appellees, and appeal by the railroad company. The case is sufficiently stated in the opinion.

*S. E. Baldwin* and *E. D. Robbins*, for the appellants.

1. The Railroad Commissioners are not entitled to defend. In a proceeding of this character they hold a *quasi* judicial position. It is contrary to all notions of ordinary judicial administration that the same persons should act as judges in a tribunal of original jurisdiction, first *ex parte*, and then on a formal hearing, and subsequently appear as parties to defend their judgment in an appellate tribunal. The town and the land owners were the only parties who could properly plead in defense to the appeal, unless the State's attorney had seen fit to intervene in behalf of the general public. *Dailey vs. City of New Haven*, 60 Conn., 314, 325. Our motion to strike out their answer should therefore have been granted.

2. The statute under which the order was made is unconstitutional. It is no justification for the judgment of the court below, because it takes our property without due process of law, and denies us the equal protection of the laws, in violation of the 14th amendment to the constitution of the United States. Its terms are as follows:—"The directors of every railroad company which operates a railroad in this State shall remove or apply for the removal of at least one grade-crossing each year for every sixty miles of road operated by it in this State, which crossings, so to be removed, shall be those which in the opinion of said directors are among the most dangerous ones upon the lines operated by it: and

if the directors of any railroad company fail so to do, the Railroad Commissioners shall, if in their opinion the financial condition of the company will warrant, order such crossing or crossings removed as in their opinion the said directors should have applied for the removal of under the above provisions; and the Railroad Commissioners in so doing shall proceed in all respects as to method of procedure and assessment of expense as if the said directors had voluntarily applied therefor." Public Acts of 1889, ch. 220, sec. 1. It is not due process of law to authorize three men, holding the office of railroad commissioners, first to decide *ex parte* that a certain railroad company must go to large expense in removing a certain grade-crossing, and to have a formal hearing on the same subject after they have prejudged the case, and then to throw the entire expense of the work on the railroad. *Camp vs. Rogers*, 44 Conn., 291, 297; *Yick Wo vs. Hopkins*, 118 U. S. R., 356. A corporation is a person within the meaning of the 14th amendment. *Santa Clara County vs. So. Pacific R. R. Co.*, 118 U. S. R., 394. The courts have a right to inquire whether any legislative act, in the exercise of the police power, imposes an unreasonable burden on any person, and, if it is unreasonable, to declare it void. *Chicago & N. W. R. R. Co. vs. Dey*, 35 Fed. Rep., 879; *Dow vs. Beidleman*, 125 U. S. R., 680, 690; *Chicago, etc., R. R. Co. vs. Minnesota*, 134 id., 418; *Pensacola, etc., Railway Co. vs. The State*, 25 Fla., 310. This is not like *Woodruff vs. New York & New England R. R. Co.*, 59 Conn., 83, or *Budd vs. New York*, 143 U. S. R., 517, cases where the legislature itself imposed the particular burden on the party complaining. The Commissioners acted under a limited power, as subordinate authorities of the State. The judgment of the court below is one merely of affirmance. If the original order was wrong the judgment of affirmance is wrong. The proceeding before the Commissioners gave us no day in court. They had avowedly prejudged our case before summoning us before them. The hearing they gave us, after such a prejudication, was a mere mockery. *Murdock, Appellant*, 7 Pick., 303, 328; *Murdock vs. Phillips Academy*, 12 id., 262, 265. It was not due course of law under our State constitution, nor due process of law under that of the United States, to decide on our rights without previous notice and hearing. *Lent vs. Tillson*, 140 U. S. R., 316, 328; *Bostwick vs. Isbell*, 41 Conn., 305, 307. Nor do we have the equal protection of the laws. No natural person can be treated as we were treated. Nor does the statute apply to all railroad companies even, but only to those whom the Railroad Commissioners are pleased to single out, *ex parte*, as deserving of censure, for not having moved spontaneously in the matter of removing grade-crossings during the year. *Soon Hing vs. Crowley*, 113 U. S. R., 703.

3. The order expunging certain of our allegations was erroneous.



Unless, in the language of our rules, there is no reasonable ground for pleading the matter to which objection is made, it cannot be struck out.

4. The court committed an error in ruling out the evidence as to the Morgan Street order and as to the New England Terminal Company.

*J. J. Jennings*, for the appellees.

ANDREWS, *C. J.* The danger of grade-crossings has received the attention of the General Assembly of this State on numerous occasions. That every such crossing is a menace to human life is recognized, and repeated enactments, each supposed to be more stringent and effective to lessen the danger than former ones, have from time to time been passed. Indeed, the legislative will seems now to have become settled that all such crossings shall be removed without unnecessary delay.

To carry out this determination the General Assembly at its session in 1889 passed an act entitled "An Act relating to Grade-Crossings." This act, which is chapter 220 of the public acts of 1889, is given in full in a note below.\* It provides that "the directors of every railroad com-

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\*SECTION 1. The selectmen of any town, the mayor and common council of any city, the warden and burgesses of any borough, within which a highway crosses or is crossed by a railroad, or the directors of any railroad company whose road crosses or is crossed by a highway, may bring their petition in writing to the Railroad Commissioners, therein alleging that public safety requires an alteration in such crossing, its approaches, the method of crossing, the location of the highway or crossing, the closing of a highway crossing and the substitution of another therefor not at grade, or the removal of obstructions to the sight at such crossing, and praying that the same may be ordered; whereupon the Railroad Commissioners shall appoint a time and place for hearing the petition, and shall give such notice thereof as they judge reasonable to said petitioner, the railroad company, the municipalities in which such crossing is situated, and to the owners of the land adjoining such crossing and adjoining that part of the highway to be changed in grade; and after such notice and hearing said Commissioners shall determine what alterations, changes, or removals, if any, shall be made and by whom done; and if the aforesaid petition is brought by the directors of any railroad company, or in behalf of any railroad company, they shall order the expense of such alterations or removals, including the damages to any person whose land is taken, and the special damages which the owner of any land adjoining the public highway shall sustain by reason of any change in the grade of such highway in consequence of any change, alteration, or removal ordered under the authority of this act, to be paid by the railroad company owning or operating the railroad in whose behalf the petition is brought; and in case said petition is brought by the selectmen of any town, the mayor and common council of any city, or the warden and burgesses of any borough, they may, if the highway affected by said determination was in existence when the railroad was constructed over it at grade, or if the lay-out of the highway was changed for the benefit of the railroad after the lay-out of the railroad, order an amount not exceeding one-quarter of the whole expense of such altera-

pany which operates a railroad in this State, shall remove or apply for the removal of at least one grade-crossing each year for every sixty

tion, change, or removal, including the damages as aforesaid, to be paid by the town, city, or borough in whose behalf the petition is brought, and the remainder of the expense shall be paid by the railroad company owning or operating the road which crosses such public highway; if, however, the highway affected by such order last mentioned has been constructed since the railroad which it crosses at grade, the Railroad Commissioners may order an amount not exceeding one-half of the whole expense of such alteration, change, or removal, including the damages as aforesaid, to be paid by the town, city, or borough in whose behalf the application is brought, and the remainder of the expense shall be paid by the railroad company owning or operating the road which crosses such public highway. The directors of every railroad company which operates a railroad in this State shall remove or apply for the removal of at least one grade crossing each year for every sixty miles of road operated by it in this State, which crossings, so to be removed, shall be those which in the opinion of said directors are among the most dangerous ones upon the lines operated by it; and if the directors of any railroad company fail so to do, the Railroad Commissioners shall, if in their opinion the financial condition of the company will warrant, order such crossing or crossings removed as in their opinion the said directors should have applied for the removal of under the above provisions; and the Railroad Commissioners in so doing shall proceed in all respects as to method of procedure and assessment of expense as if the said directors had voluntarily applied therefor.

SEC. 2. The Railroad Commissioners may, in the absence of any application therefor, when in their own opinion public safety requires an alteration in any highway or highways crossed at grade by a railroad or by railroads belonging to or operated by more than one company, after a hearing had upon such notice as they shall deem reasonable to the railroad company or companies owning or operating said railroad or railroads, and to the selectmen of the town, mayor of the city, or warden of the borough within which said highway or highways are situated, and to the owners of the land adjoining said crossing, order such alterations in such highway or highways as they shall deem best, and shall determine and direct by whom such alterations shall be made, at whose expense, and within what time; *provided* that in all cases arising under this section one-fourth of the expense, including damages and special damages as aforesaid, shall be paid by the State, and the remainder shall be assessed upon the railroad company or companies benefited by such order; *and provided* that such alterations as are thus made at the primary instance of the Railroad Commissioners shall not be ordered so as to direct the construction of more than one bridge in any one year on any one railroad.

SEC. 3. Railroad companies may take land for the purpose of this act in the manner provided by law for the taking of lands by railroad companies.

SEC. 4. Whenever the Railroad Commissioners, upon an application brought under the provisions of section one of this act, shall find that any highway crosses or is crossed by the tracks of more than one railroad, and the tracks of such railroads are so near together that public convenience requires the work of separating the grades to be done under and in compliance with one order, they shall give notice to all the companies operating said railroads to appear before them and be heard upon the application, and after such notice and hearing said Commissioners shall determine what alterations shall be made, if any, so as to

miles of road operated by it in this State, which crossing so to be removed shall be those which in the opinion of the directors are among the most dangerous ones upon the lines operated by it; and if the directors of any railroad company fail so to do, the railroad commissioners shall, if in their opinion the financial condition of the company will warrant, order such crossing or crossings removed as in their opinion the directors should have applied for the removal of under the above provisions; and the railroad commissioners in so doing shall proceed in all respects as to method of procedure and assessment of expenses as if the said directors had voluntarily applied therefor."

In an earlier part of the same section the rule of procedure to be followed by the commissioners in making such order is given, as follows:—"And if the aforesaid petition is brought by the directors of any railroad company, or in behalf of any railroad company, they shall order the expense of such alterations or removals, including the damages to any person whose land is taken, and the special damages which the owner of any land adjoining the public highway shall sustain by reason of any change in the grade of any such highway in consequence of any change, alteration, or removal ordered under the authority of this act, to be paid by the railroad company owning or operating the railroad in whose behalf the petition is brought."

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separate the grades of all of said crossings at the same time, and they shall determine by whom such work shall be done, and they shall apportion the expense to be borne by the railroad companies between such companies in such manner as they, the said Commissioners, shall deem proper.

SEC. 5. Damages under the provisions of this act on account of any change of grade in highways shall be assessed in the same manner as in the case of land taken for railroad purposes; and the provisions of this act in relation to such damages for change of grade shall apply in the case of any order passed by the Railroad Commissioners or Superior Court since June 1, 1887, under the authority conferred by section 3489 of the General Statutes.

SEC. 6. The provisions of section 3491 of the General Statutes in relation to appeals shall apply to any decision of the Railroad Commissioners under the authority of this act.

SEC. 7. It shall be the duty of the railroad companies to maintain and keep in repair all structures erected over their tracks at any highway crossing, but it shall be the duty of the municipality in which the structure is situated to keep in repair the surface of the highway, including the planking or other surface material of the highway upon such structure.

SEC. 8. The provisions of this act shall apply to any cause or application now pending before the Railroad Commissioners or Superior Court. All provisions of the General Statutes which relate to sections 3483 and 3489 of the same shall be deemed to apply to the provisions of this act.

SEC. 9. Sections 3483 and 3489 of the General Statutes are hereby repealed, but no rights, duties, or obligations belonging to or imposed upon any parties by any judgments heretofore rendered shall be impaired or altered by such repeal.



All the prior statutes respecting grade-crossings had been permissive. They had authorized the directors of any railroad or the proper officers of a municipality to apply to the Railroad Commissioners for an order by which some grade-crossing should be removed. None of them had made it compulsory upon any one to ask for such an order, nor had they laid the duty upon any one to take the steps necessary to remove such crossings. As expenses — sometimes quite large expenses — would be incurred in the changes incident to such removal, perhaps it is not strange that those statutes had done very little to abate the evil aimed at. The legislature of 1889 proceeded to apply a more rigorous rule. While leaving the permissive features of the former acts to remain in force, they commanded the directors of every railroad in the State to remove or to apply for the removal of a certain ratable number of the most dangerous grade-crossings on the roads operated by them. But the railroad directors were interested and might not obey the command, and another provision was added. Jurisdiction was conferred on the Railroad Commissioners. It is this last provision which the present case brings before the court for examination. What is the power of the Railroad Commissioners conferred by the act? And how must they proceed?

In arriving at the legislative intent as expressed in any statute it is always expedient to recur to the circumstances which surrounded the legislature at the time the statute was passed. In 1889 there was an urgent public demand for efficient legislation to remove the danger arising from grade-crossings. At that time the Asylum Street Bridge Commission was about finishing its labors. That commission had been created by the legislature and directed to take such steps as were needed to remove a grade-crossing in Asylum street in the city of Hartford. The validity of that commission had been established. Its efficiency and success had been demonstrated. In that instance by the instrumentality of a commission one grade-crossing of exceptional danger had been removed. That was a precedent which might safely be followed. All grade-crossings were dangerous, although not so highly dangerous as the one in Asylum street. A special commission was needed for the removal of that one. But in ordinary cases a general commission would be adequate. In the Asylum street case the legislature acted because the railroads and the municipality neglected to act. That commission was successful because it was the instrument of the supreme power of the state. If in other cases the directors of railroads disobeyed the commands of the statute and neglected to remove the dangerous crossings, another commission acting in like manner by the supreme power of the state would be likely to be successful. In the one case the legislature had proceeded upon the theory that the Asylum street crossing was a



nuisance dangerous to human life. Now the legislature was about to proceed upon the theory that all such crossings were nuisances dangerous to human life. Reading the statute now in question in the light of these circumstances, it is impossible not to believe that the legislature intended to invest the Railroad Commissioners, in the cases of grade-crossings over which they were given jurisdiction by this act, with power of the same kind as and clearly analogous to the power with which the special commission had been invested. The general commission, like the special one, was to be an instrumentality of the supreme power to remove dangerous nuisances.

What was said by this court of the statute which created that special commission may with equal justice be said of the statute of 1889. "In scope and purpose it concerns the protection of life. Neither in intent nor fact does it increase or diminish the assets of any railroad corporation. It is the exercise of the governmental power and duty to secure safe highways. The legislature having determined that the intersection of a railway with any highway at grade is a nuisance dangerous to life, in the absence of action on the part of the municipality or of the railroad may compel them to become the owner of the right to lay out new highways and new railways over such land and in such manner as will separate the grade of the railway from that of the highway at intersections; may compel them to use the right for the accomplishment of the desired end; may determine that the expenses shall be paid by either corporation alone, or in part by both, and may enforce obedience to its judgment. That the legislature of the State has the power to do all this for the specified purpose, and to do it through the instrumentality of a commission, it is now only necessary to state, not to argue." On the 12th day of March, 1891, the Railroad Commissioners, intending to obey the command contained in that act, and to conform to the rule of procedure therein prescribed, issued an order in which, after reciting that the directors of the New York & New England Railroad Company had failed to remove or apply for the removal during the year ending August 1, 1890, of any grade-crossing of a highway which crossed or was crossed by their railroad, and that in their (the Railroad Commissioners') opinion the said directors should have applied for the removal of the grade-crossing of their road and the highway known as Main street in the town of Bristol, and also the various notices, appearances, and hearings that had been had in the matter, they ordered and directed as follows:—"And now, after such notices and hearings, we, being of opinion that the financial condition of the said New York & New England Railroad Company will warrant such order, and that public safety requires the same, do hereby order such crossing removed,

and do determine and order that the following alterations, changes, and removals be made and done, to wit:— That the method of crossing be altered so that said highway, instead of crossing said tracks at grade as at present, be carried under said tracks, and for that purpose that the location of said crossing be changed by the removal of said tracks” (setting out minutely the changes to be made). “All of said changes and alterations and removals to be made and done by said railroad company, and the expenses thereof, including the damages to any person whose land is taken, and the special damages which the owner of any land adjoining the public highway shall sustain by reason of any change in the grade of such highway in consequence of any change, alteration, or removal ordered, to be paid by said railroad company.”

From that order the railroad company made the present appeal to the Superior Court in Hartford County. They made the town of Bristol, the Railroad Commissioners, and divers other parties, defendants, and caused notice to be served on them to appear and make answers.

In the Superior Court there were various pleadings filed, sundry motions were made, and there were orders thereon, there was a hearing and judgment affirming the order of the Railroad Commissioners, and a finding of facts as follows :—

“Said railroad company is, and at the date of said order was, of sufficient ability to execute said order of the Railroad Commissioners, and the financial condition of said company was at the time of the making of said order, and is, such as to warrant the order for the removal of said crossing. Said crossing so ordered to be removed is one of the most dangerous ones upon the line of said railroad, and the said order was necessary for the safety of the public. At the commencement of the trial the plaintiff moved to strike out the answer of the Railroad Commissioners, upon the ground that they were not entitled under the statute to appear and defend in said proceedings in this Court. The Court denied the motion and the plaintiff excepted to said ruling. The plaintiff offered to prove that in December, 1890, the Railroad Commissioners, in a proceeding against the New York, New Haven & Hartford Railroad Company, ordered the removal of a grade-crossing on Morgan street in the city of Hartford in such manner as to require one-fourth of the expenses of such removal to be paid by the state. Said evidence was offered in support of the allegation in paragraph seventeen of the plaintiff’s petition. Upon objection of the defendant the Court excluded the evidence and the plaintiff excepted to said ruling.”

From that judgment the railroad company has appealed to this Court. The several grounds of appeal, as they are mentioned in the appellant’s brief, are :—

1st. That the Railroad Commissioners were not entitled to appear and defend.

2d. That the statute is unconstitutional.

3d. That the order expunging various paragraphs of the appeal was erroneous.

4th. That it was error to reject the evidence concerning the Morgan street order.

5th. That it was error to admit the evidence concerning the New England Terminal contract.

6th. That all the issues are not disposed of by the judgment.

There was no error in overruling the plaintiff's motion, not made till the opening of the trial, that the answer of the Railroad Commissioners be stricken out on the ground that they were not entitled to appear in the matter. The plaintiff having caused the Commissioners to be brought into Court and having joined issue with them upon their answer, was not in a position to ask that they be denied an opportunity to be heard. But without this, we think the relation of the Railroad Commissioners in these proceedings to the State and to the railroad company was so analogous to the position of the special commission in the Asylum street bridge case, that they rightfully were there in Court. They represented the State.

The statute is in its operation an amendment to the charter of each of the railroad corporations affected by it. It imposes on the plaintiff, being a corporation of that kind, an obligation which previous to its passage the charter of the plaintiff did not impose. But as that charter contained the provision that it might be altered at pleasure by the legislature, the statute is binding upon it.

All general laws and matters of police regulation affecting corporations are binding upon them without their assent. *New York & New England R. R. Co. vs. City of Waterbury*, 60 Conn., 1; *Bulkley vs. New York & New Haven R. R. Co.*, 27 id., 479; *English vs. New Haven & Northampton Co.*, 32 id., 240; *City of Bridgeport vs. New York & New Haven R. R. Co.*, 36 id., 264. That the legislature may rightfully and constitutionally impose such additional obligations upon a railroad company it is now too late to question. *New York & New England R. R. Co.'s Appeal from R. R. Commissioners*, 58 Conn., 532. Such legislation violates no contract, takes away no property, and interferes with no vested rights. *Woodruff vs. Catlin*, 54 Conn., 277; *Woodruff vs. New York & New England R. R. Co.*, 59 id., 63; *People ex rel. Kimball vs. Boston & Albany R. R. Co.*, 70 N. York, 569; *Railroad Co. vs. Richmond*, 96 U. S. R., 521; *Cooley's Const. Lim.* (5th ed.), 672. As stated above, the act of 1889 retains the permissive features of prior enactments and authorizes the Railroad Commissioners to act in the removal of a grade-

crossing upon the application of the selectmen of any town, but provides that in such case the town shall be required to pay not more than one-fourth the expense. An application under that part of the statute arose in the town of Killingly, and is the case reported in 58 Conn., 532, *New York & New England R. R. Co.'s Appeal*. It was strenuously argued in that case that the statute was unconstitutional. This Court then said:—“The policy of the State now is to abolish these grade-crossings as rapidly as can be reasonably done. Legislation on this subject assumes that each party in the discharge of its duty is concerned in creating the danger, and that each party may justly be required to contribute to the expense of its removal, or that either may be required to pay the whole, and, if each contributes, that the proportion that each shall pay may be determined by the legislature in each case as it arises, or by a general rule; by itself or by a delegation of its powers to the Railroad Commissioners. This exercise of power is justifiable on the ground that government itself in the discharge of its governmental duties undertakes to remove the danger, and does it in the same manner and through the same instrumentalities that it provides and maintains highways through and at the expense of towns and other corporations. So far as towns are concerned it is a duty that has ever devolved upon them to keep the highways reasonably safe. They are compelled to act without compensation or pecuniary profit. Their sole motive is the public welfare. Railroad companies in some sense are but agents of the government in affording to the public a more expeditious and vastly improved method of travel. As a compensation for their capital and labor invested they are permitted, as turnpike companies formerly were, to charge the public for the use of their ways. Unlike towns, they do not act upon compulsion, but by choice. Their motives are private gain; public benefit is incidental. Advantage to the public is a reason for granting the franchise; but the enterprise is essentially a private one. They contribute largely to the danger, and the State may well require them to contribute largely to its removal. . . . Grade-crossings are called, not in every sense perhaps, nuisances. It is not claimed that they are indictable, or that either party in the absence of negligence would be civilly liable, yet they are in the nature of nuisances and are literally within Blackstone's definition—‘anything that worketh hurt, inconvenience, or damage.’ We think it is competent for the State to cause them to be abated, and they may require any party responsible for their existence to pay any part or all of the expenses. That being so, requiring the railroad company to pay three-fourths of the expense, however just it might be to require the town to pay more than one-fourth, is not a matter of which the railroad company can legally complain. The



statute may operate harshly, as all statutes are liable to in certain cases, but it is not unconstitutional."

It being established by the Legislature and by the repeated decisions of this Court that grade-crossings are in the nature of nuisances and dangerous to life, the right of the Legislature to cause them to be abated and to require either party to pay the whole or any portion of the expense cannot be questioned. *Raymond vs. Fish*, 51 Conn., 80; *Dunham vs. City of New Britain*, 55 id., 378; *State vs. Worden*, 56 id., 216; *Miller vs. Horton*, 152 Mass., 540.

A further question raised by the plaintiff under the second reason of appeal is that the statute is unconstitutional because it authorizes the Railroad Commissioners to make their own jurisdiction. This objection cannot be sustained. The jurisdiction given to the Railroad Commissioners to proceed on their own motion to order the removal of any grade-crossing in any particular instance depends on two conditions; first, the failure of the directors to remove or apply for its removal; of such failure the Railroad Commissioners would have official knowledge; second, the opinion of the Commissioners that the crossing is one for the removal of which the directors ought to have applied, and their opinion that the financial condition of the railroad company is such as will warrant the order. It is a sound rule of construction that when a statute gives discretionary power to any person to be exercised by him upon his own opinion of certain facts, the statute makes him sole and exclusive judge of the existence of those facts. *Martin vs. Mott*, 12 Wheat., 19, 29, *per* STORY, J.; *Luther vs. Borden*, 7 Howard, 45, *per* TANEY, C. J. There is really no occasion for the application of this rule of construction. The right of appeal being afforded, the plaintiff could not be harmed by any finding the commissioners should make. They had the right to be, as in fact they were, fully heard in the Superior Court upon all the disputed questions in the case. It was admitted — certainly it was not denied — that the plaintiff's directors had neglected to comply with the legislative command to remove grade-crossings. And it is found that the one ordered to be removed by the Commissioners was one of the most dangerous upon the line of the railroad, and that its removal was necessary for the public safety, and that the financial condition of the plaintiff was such as to warrant the order made by the Commissioners.

In the third reason of appeal the plaintiff claims to be aggrieved because certain of the paragraphs of its original application were expunged. Giving the most liberal construction to the statute in favor of the plaintiff, the only questions in the case which were material, or upon which there could be any issue, were — 1st, whether or not the plaintiff's directors had removed or applied for the removal of a grade-crossing as

required by the statute; 2d, whether or not the grade-crossing ordered to be removed by the Commissioners was in fact a dangerous one, and one which the directors ought to have removed, or for the removal of which the directors ought to have applied; 3d, whether or not the financial condition of the plaintiff was such as to warrant the order. The Practice Act forbids a party to set out in its pleadings the evidence by which the material facts are to be proved. All the averments expunged from the plaintiff's application were statements of evidential facts tending to show the plaintiff's financial condition. They were properly stricken out.

The order made by the Railroad Commissioners in the case of the Morgan street crossing was properly rejected. That order was made under another part of the statute and was against another railroad company. It was a matter between other parties. *Bethlehem vs. Watertown*, 47 Conn., 237; *Burdick vs. City of Norwich*, 49 id., 225; 1 Greenleaf's Ev., § 524.

If the Superior Court erred in admitting in evidence the contract made by the plaintiff with the New England Terminal Company, we are not able to see how the plaintiff was injuriously affected. It was an immaterial error. And according to section 1125 of the General Statutes we ought not to reverse the judgment or grant a new trial for that reason. It fully appears that all the material issues in the case were disposed of by the finding and the judgment.

There is no error in the judgment appealed from.

In this opinion the other judges concurred.

## IN THE SUPREME COURT OF THE UNITED STATES.

(October Term, 1893. — No. 15,294.)

N. Y. & N. E. R. R. COMPANY

vs.

TOWN OF BRISTOL,

GEORGE M. WOODRUFF ET AL.,

*Railroad Commissioners et al.*

ERROR TO THE SUPREME COURT OF  
ERRORS OF THE STATE OF CONNEC-  
TICUT.

## MOTION TO DISMISS OR AFFIRM.

*To the New York & New England Railroad Company, Plaintiff in Error :*

Notice is hereby given you that a motion will be made in the above-entitled cause on the eighth day of January, 1894, or as soon thereafter as counsel can be heard, to dismiss the writ of error or to affirm the

judgment or decree of the Court below, upon the grounds and for the reasons and upon the authorities herewith served upon you with this notice.

Dated at Bristol, Conn., Nov. 20, 1893.

HENRY C. ROBINSON,

JOHN J. JENNINGS,

*Attorneys for the Defendants in Error, Railroad Commissioners of the State of Connecticut.*

# IN THE SUPREME COURT OF THE UNITED STATES.

(October Term, 1893. — No. 15,294.)

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*Plaintiff in Error,*

*vs.*

TOWN OF BRISTOL,

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Railroad Commissioners *et al.*,

*Defendants in Error.*

ERROR TO THE SUPREME COURT OF  
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TICUT.

## MOTION TO DISMISS OR AFFIRM.

And now come the defendants in error, George M. Woodruff *et al.*, Railroad Commissioners of the State of Connecticut, and move the Court to dismiss the writ of error in the above-entitled cause, and unite therewith a motion to affirm the decree and judgment of the Court of Connecticut, for the following reasons :

1. There is no federal question arising on the record filed in this Court.

2. No federal question arose in the trial Court, or in the Supreme Court of Errors of the State of Connecticut, which was decided against the title, right, privilege, or immunity set up or claimed by the plaintiff in error.

3. This case involves a statute whose construction by the State Court of last resort adverse to the plaintiff will be respected by this Court.

4. The Supreme Court of Errors of the State of Connecticut, the Court of last resort in that State, in constructing a local statute, the one here in question, has ruled that the law is an amendment of the charter of the plaintiff company, which charter is amendable at the will of the General Assembly of that State.

5. No federal question is necessarily involved in the judgment of the Court below.

6. It is manifest that the writ of error herein was taken for delay only.

7. The question on which jurisdiction depends is so frivolous as not to need further argument.

8. If there is a federal question involved in the judgment, the decision of the Court below is so clearly right that the writ of error should be dismissed, or the decree and judgment affirmed.

9. The General Assembly of the State of Connecticut in 1889 passed "An Act relating to Grade Crossings" (*Infra*, p. 6), which provided, among other things, that the directors of every railroad company should remove, or apply for the removal of, at least one grade-crossing each year for every sixty miles of road operated by it in that State, which should be those in the opinion of the directors most dangerous, and if the directors failed so to do, the Railroad Commissioners must, if in their opinion the financial condition of the company warranted it, order such crossing or crossings to be removed as in their opinion the said directors should have removed. In pursuance of this act the Railroad Commissioners summoned the railroad company and all parties interested before them, and, after numerous hearings, extending over the space of four months, ordered that the crossing in question should be forthwith removed, in accordance with certain plans and specifications prepared by the railroad company. (See Exhibit "A," Record, pp. 6-9.) The plaintiff in error appealed from this order to the Superior Court, a court of general jurisdiction, and the highest *nisi prius* tribunal in the State, and in its petition set up the following reasons why the order should be reversed (see Record, pp. 3-5, 6, 18, and Appeal in final form, *infra*, p. 10):

(1) That the company was not of sufficient ability to execute the order, and that its financial condition did not warrant the making of such order.

(2) That the company could not meet the expenses of executing the order and have enough income left to pay its fixed charges and maintain its railroad in good and proper condition.

(3) That the law and the order of the Commissioners were void, as violating both the Constitution of the United States and the Constitution of the State of Connecticut, in that it impaired the obligation of the contracts made by said company with the holders of its bonds and preferred stock by making it impossible for said company to pay the interest on its bonds and dividends



on their preferred stock, as agreed between them and said company, and yet maintain and operate its railroad efficiently.

(4) That the order was not necessary for the safety of the public.

After a full trial upon the merits, the Court found that the plaintiff in error was of sufficient ability to execute said order, and that its financial condition warranted the making of such order; that said crossing was one of the most dangerous ones upon the line of the railroad, and that said order was necessary for the safety of the public. (Record, p. 19.) On the 7th of October the plaintiff in error appealed from said judgment to the Supreme Court of Errors for the State of Connecticut, to be holden on the first Tuesday of the following January, in which appeal no constitutional question was raised. (Record, p. 27.) On the 19th day of December one of the learned attorneys of the plaintiff in error filed an amendment to the appeal, raising questions of constitutional law. (Record, p. 28.) The questions submitted to the Supreme Court of Errors were chiefly matters of evidence and practice. The Court found that there was no error in the judgment of the Superior Court.

(1) In construing the statute the Court held that under the laws of the State of Connecticut the statute in question became upon its passage an amendment of the charter of the plaintiff in error.

(2) That the statute properly treated crossings as nuisances subject to abatement at the expense of any party causing or contributing to the result under the police powers of the State.

(3) That the statute was a governmental act of the supreme power enacted to preserve human life.

10. There was no property of the company taken, and the duty which the order imposed was by due process of law and of laws of equal protection.

11. The writ of error was not allowed by this Court or by the Chief Justice or any Associate Justice.

Wherefore the defendants in error pray that the writ of error be dismissed or the decree and judgment of the Court of Connecticut be affirmed.

HENRY C. ROBINSON,  
JOHN J. JENNINGS,

*Attorneys for Defendants in Error.*

## NOTES.

Counsel for the convenience of this Court here point out the material and immaterial parts of the transcript of record.

The doings of the Railroad Commissioners are set forth in Exhibit "A," found at pp. 6-8.

The petition of appeal was amended by the plaintiffs in error and corrected by the trial Court, and will be most conveniently consulted by reference to page 10 of the following brief.

For memorandum of decision of the trial Court see page 18, for the judgment see page 19, for the finding of facts see page 20.

For the reasons of appeal to the Supreme Court of Errors of Connecticut see page 27, and for the amendment thereto see page 28.

The opinion of the Supreme Court of Errors of Connecticut is found at pp. 30-37.

For the assignment of errors in this Court see pp. 38-39.

All other parts of the transcript of record are immaterial.

## SUGGESTIONS IN SUPPORT OF MOTION.

*Statement.*

The Legislature of Connecticut, acting with enlightenment and wisdom, and in harmony with the wisdom of other enlightened legislative and judicial bodies, have, in the interest of public safety, fulfilled their governmental duty in legislating for the separation of railroad and street highway travel. To this end, by many earlier statutes, permission was given to both railroad companies and municipalities to move in the matter of separating grades, wherever they cross, with the approval of the Board of Railroad Commissioners, a tribunal selected with great care and clothed with judicial and administrative powers. In 1889 the Legislature advanced a step and required, by a compulsory enactment, that each railroad company should, at its own expense, remove one such crossing a year for each sixty miles of its operated railroad. If a company failed in this duty, the Commissioners were commanded to order the removal of at least one of the most dangerous grade-crossings at the company's expense, provided they should find, after fair hearing, that the financial condition of the company would warrant it. The statute, which bears upon all companies alike, is as follows :

## CHAPTER CCXX.

## AN ACT RELATING TO GRADE CROSSINGS.

*Be it enacted by the Senate and House of Representatives in General Assembly convened :*

"The selectmen of any town, the mayor and common council of any city, the warden and burgesses of any borough within which a highway crosses

or is crossed by a railroad, or the directors of any railroad company whose road crosses or is crossed by a highway may bring their petition in writing to the railroad commissioners, therein alleging that public safety requires an alteration in such crossing, its approaches, the method of crossing, the location of the highway or crossing, the closing of a highway crossing and the substitution of another therefor, not at grade, or the removal of obstructions to the sight at such crossing, and praying that the same may be ordered; whereupon the railroad commissioners shall appoint a time and place for hearing the petition, and shall give such notice thereof as they judge reasonable to said petitioner, the railroad company, the municipalities in which said crossing is situated, and to the owners of the land adjoining such crossing and adjoining that part of the highway to be changed in grade; and after such notice and hearing, said commissioners shall determine what alterations, changes, or removals, if any, shall be made and by whom done; and if the aforesaid petition is brought by the directors of any railroad company, or in behalf of any railroad company, they shall order the expense of such alterations or removals, including the damages to any person whose land is taken, and the special damages which the owner of any land adjoining the public highway shall sustain by reason of any change in the grade of such highway, in consequence of any change, alteration, or removal ordered under the authority of this act, to be paid by the railroad company owning or operating the railroad in whose behalf the petition is brought; and in case said petition is brought by the selectmen of any town, the mayor and common council of any city, or the warden and burgesses of any borough, they may, if the highway affected by said determination was in existence when the railroad was constructed over it at grade, or if the layout of the highway was changed for the benefit of the railroad after the layout of the railroad, order an amount not exceeding one-quarter of the whole expense of such alteration, change, or removal, including the damages, as aforesaid, to be paid by the town, city, or borough in whose behalf the petition is brought, and the remainder of the expense shall be paid by the railroad company owning or operating the road which crosses such public highway; if, however, the highway affected by such order, last mentioned, has been constructed since the railroad which it crosses at grade, the railroad commissioners may order an amount not exceeding one-half of the whole expense of such alteration, change, or removal, including the damages, as aforesaid, to be paid by the town, city, or borough in whose behalf the application is brought, and the remainder of the expense shall be paid by the railroad company owning or operating the road which crosses such public highway. The directors of every railroad company which operates a railroad in this state shall remove or apply for the removal of at least one grade-crossing each year for every sixty miles of road operated by it in this state, which crossings, so to be removed, shall be those which in the opinion of said directors are among the most dangerous ones upon the lines operated by it, and if the directors of any railroad company fail so to do, the railroad commissioners shall, if in their opinion the financial condition of the company will warrant, order such crossing or crossings removed as in their opinion the said directors should have applied for the removal of under the above provisions, and the railroad commissioners in so doing shall proceed in all respects as to method of procedure and assessment of expense as if the said directors had voluntarily applied therefor.

“SEC. 2. The railroad commissioners may, in the absence of any application therefor, when in their own opinion public safety requires an alteration in

any highway or highways crossed at grade by a railroad or by railroads belonging to or operated by more than one company, after a hearing had upon such notice as they shall deem reasonable to the railroad company or companies owning or operating said railroad or railroads, and to the selectmen of the town, mayor of the city, or warden of the borough within which said highway or highways are situated, and to the owners of the land adjoining said crossing, order such alterations in such highway or highways as they shall deem best, and shall determine and direct by whom such alterations shall be made, at whose expense, and within what time; *provided*, that in all cases arising under this section one-fourth of the expense, including damages and special damages, as aforesaid, shall be paid by the state and the remainder shall be assessed upon the railroad company or companies benefited by such order; *and provided*, that such alterations as are thus made at the primary instance of the railroad commissioners shall not be ordered so as to direct the construction of more than one bridge in any one year on any one railroad.

"SEC. 3. Railroad companies may take land for the purpose of this act in the manner provided by law for the taking of lands by railroad companies.

"SEC. 4. Whenever the railroad commissioners, upon an application brought under the provisions of section one of this act, shall find that any highway crosses or is crossed by the tracks of more than one railroad, and the tracks of such railroads are so near together that public convenience requires the work of separating the grades to be done under and in compliance with one order, they shall give notice to all the companies operating said railroads to appear before them and be heard upon the application, and after such notice and hearing said commissioners shall determine what alterations shall be made, if any, so as to separate the grades of all said crossings at the same time, and they shall determine by whom such work shall be done, and they shall apportion the expense to be borne by the railroad companies between such companies in such manner as they, the said commissioners, shall deem proper.

"SEC. 5. Damages under the provisions of this act on account of any change of grade in highways shall be assessed in the same manner as in the case of land taken for railroad purposes; and the provisions of this act in relation to such damages for change of grade shall apply in the case of any order passed by the railroad commissioners or superior court since June 1, 1887, under the authority conferred by section 3489 of the general statutes.

"SEC. 6. The provisions of section 3491 of the general statutes in relation to appeals shall apply to any decision of the railroad commissioners under the authority of this act.

"SEC. 7. It shall be the duty of the railroad companies to maintain and keep in repair all structures erected over their tracks at any highway crossing, but it shall be the duty of the municipality in which the structure is situated to keep in repair the surface of the highway, including the planking or other surface material of the highway upon such structure.

"SEC. 8. The provisions of this act shall apply to any cause or application now pending before the railroad commissioners or superior court. All provisions of the general statutes which relate to sections 3483 and 3489 of the same shall be deemed to apply to the provisions of this act.

"SEC. 9. Sections 3483 and 3489 of the general statutes are hereby repealed, but no rights, duties, or obligations belonging to or imposed upon any parties by any judgments heretofore rendered, shall be impaired or altered by such repeal.

"Approved, June 19, 1889."



Section 3491 of the General Statutes referred to above in Section 6 was amended by Chapter 213 of the Acts of 1889, to read as follows :

"SEC. 3518. Any person aggrieved by any order of the railroad commissioners, upon any proceeding relative to the location, abandonment, or changing of depots or stations to which he was or ought to have been made a party, may appeal from the same to the superior court of the county in which the cause of appeal shall arise, within thirty days after the publication of such order, by a petition in writing with a proper citation signed by competent authority to all parties to said proceedings having an interest adverse to him, to be served upon them at least twelve days before the return day ; and said court may hear said appeal and re-examine the question of the propriety and expediency of the order appealed from, either by itself or a committee, and shall proceed thereon in the same manner as upon complaints for equitable relief ; and in case said order is not affirmed, may make any other order in the premises that it may deem proper and which might have been made by the railroad commissioners therein, and may award costs at its discretion. Such appeal shall be a *supersedeas* of the order appealed from until the final action of the court thereon, and said final order may be enforced by said court by attachment, mandamus, or otherwise, as it shall deem proper."

There were, in 1890, 1,147 grade crossings in the State, 267 of them being upon the railroad operated by the plaintiff in error, whose mileage in Connecticut is about 205 miles.

See Rep. R. R. Com. for 1890.

The law required this company to eliminate three grade-crossings in that year. This law they disobeyed, and the Commissioners, as required by the statute, selected the most dangerous crossing upon their line, being upon the principal street in the active manufacturing town of Bristol, and, after due notice and a full hearing covering four months of time, the Commissioners adopted the company's own plans, and ordered a separation of the grades accordingly.

From this order the company appealed to the Superior Court, a court of general jurisdiction and the highest *nisi prius* tribunal in the State. The appeal, after corrections by the Court and amendments by the company, was in the following form :

"1. On the 2d day of March, 1891, the Railroad Commissioners of this State made an order to said company, requiring the removal of the grade-crossing of its railroad and Main street in the town of Bristol, a full copy of which, marked Exhibit 'A,' is to be annexed hereto and filed herewith.

"1a. Said company is not, and at the date of said order was not of sufficient ability to execute the work of making the changes required by said order, and its financial condition does not, and did not then, warrant the making of such an order.

"11. Said company cannot meet the expenses of executing the said order of the Railroad Commissioners, and have enough income left to pay its fixed charges, including interest on its bonds issued as aforesaid and outstanding, and

the dividends on its preferred stock issued as aforesaid, and maintain its railroad in good and proper condition.

"12. If the law under which the proceedings were had, as set forth in said order, justifies said order, then it and said law are void as violating both the constitution of the United States and the constitution of the State of Connecticut, in that said order impairs the obligation of the contracts made by said company with the holders of its bonds and preferred stock by making it impossible for said company to pay the interest on their bonds and dividends on their preferred stock as agreed between them and the said company, and yet maintain and operate its railroad efficiently, and further, in that it takes the property of said company without just compensation and without due process of law and denies to it the equal protection of the laws.

"16. Said order, herein appealed from, was not an order necessary for the safety of the public.

"17. Said order should have been so made, and proceedings leading up thereto had, if at all, under Section 2 of the Act of 1889, as that one-quarter of the expense of its execution should be paid by the State."

There the parties were at issue upon the question of the financial ability of the company, and the judgment of the Railroad Commissioners upon that point and upon the extremely dangerous character of the grade-crossing was affirmed. The judgment of the Superior Court is as follows, found on page 18 of the Record :

THE NEW YORK & NEW ENGLAND RAILROAD COMPANY	} SUPERIOR COURT, HARTFORD COUNTY, July 29, 1892.
vs.	
TOWN OF BRISTOL <i>et al.</i> , GEORGE M. WOODRUFF <i>et al.</i> , RAILROAD COM- MISSIONERS OF THE STATE OF CON- NECTICUT.	

"This action, by petition, appealing from the order of the Railroad Commissioners, dated the 2d day of March, 1891, requiring the removal of the grade-crossing of the plaintiff's railroad and Main street in the town of Bristol, as on file, came to this Court on the first Tuesday of May, 1891, and thence by continuance to the present term, when the plaintiff and the defendants, Railroad Commissioners George M. Woodruff, W. H. Hayward, and William O. Seymour, and Defendant Henry A. Seymour, appeared and were at issue to the Court as on file.

"And the Court, having heard the parties, finds that the financial condition of the plaintiff railroad company will warrant the order of the Railroad Commissioners for the removal of the grade-crossing in question, that said crossing is among the most dangerous ones upon the line of said railroad, and that the safety of the public requires its removal.

"Whereupon it is ordered and adjudged that the order of the Railroad Commissioners appealed from in this action be and the same is hereby affirmed.

"And it is further ordered that the New York & New England Railroad Company, the plaintiff, pay to the Railroad Commissioners, the defendants, their costs, taxed at        dollars and        cents.

By the Court,  
C. W. JOHNSON, *Clerk.*"

The railroad company appealed from the rulings of the Superior Court to the Supreme Court of Errors of Connecticut, by appeal made October 7th, which raised no Federal question. More than two months afterwards, one of the company's learned attorneys added as an amendment constitutional points, none of which appear to have been contested below, or passed upon in judgment by the Superior Court. The constitutional question as to the law impairing bond contracts is disposed of by the absence of all facts in its favor and the presence of the controlling fact twice adjudged, by the Commissioners and by the Superior Court, that the financial condition of the company warranted the order.

That the law is equal cannot be disputed, because it applies to all railroad companies, and, if it did not, it would not be offensive to that clause of the Constitution. There remains only the single claim that the company's property has been taken without due process of law, and without the laws of equal protection by the provisions and enforcement of an act which the Supreme Court of Connecticut has construed to be an amendment by the Legislature of the railroad company's open charter.

## BRIEF.

### I.

The writ of error should be dismissed upon motion.

In September, 1890, the State of Connecticut, acting through its lawfully constituted tribunal, a Railroad Commission, consisting, as the Statute required, of an experienced lawyer, a competent engineer, and a practical business man, commenced proceedings against the New York & New England Railroad Company, which had neglected to remove any grade-crossing upon its line, although positively required by the Statutes of the State to remove three in each year. This proceeding was, by the statutes, made compulsory upon the Commissioners. After a full and fair hearing, they ordered the railroad company to separate their own grade from the grade of Main street, an ancient highway in the town of Bristol. The Commission considered the question of the financial ability of the company, and found it abundantly able to remove this most dangerous grade-crossing, and, after careful study of plans, adopted the plan submitted by the company, and, on the 3d of February, 1891, made an order, in compliance with law, whereby it became the duty of the company to separate the grades in accordance with their own plans.

The proceedings before and by the Commissioners are fully set forth in transcript, Exhibit "A," pp. 6-9.

From this order the company appealed in April, 1891, according to law, thus superseding the order of the Commissioners.

After a full hearing, the Honorable Superior Court affirmed the

judgment of the Commissioners in all respects, and found, as a finality, that the company was abundantly able to remove the crossing; and that the crossing was most dangerous; and that the safety of the public required its removal.

See Transcript of Record, pp. 18, 19.

Both these issues were made by the company. See appeal, pp. 3-6, Transcript of Record.

The company appealed, upon questions of evidence and practice, to the Supreme Court of Errors of Connecticut, and afterwards amended their reasons of appeal so as to be able to carry constitutional questions to the Supreme Court of the United States, to make farther delay in case they failed upon their points of evidence and practice. The constitutional points they had raised before against the Statute, in a suit between the same parties as are now before your Honorable Court.

*N. Y. & N. E. R. R. Co. vs. R. R. Com.*, 58 Conn., 532.

To the judgment in the latter case, the company had brought no writ of error to Washington.

Thus, after more than three years of endeavor to suppress them, the dangers of the crossing are continued, threatening human life each hour in the day, and for the alleged causes which, we submit, are wholly frivolous, and relief to the public is prevented by the continuance of the cause. If we are right in our estimate of the claims of the plaintiff in error, it is clearly a case which falls within the rules and practice of the Court upon motions to dismiss the writ and, upon considerations of later suggestions in the brief, to affirm the judgment below.

*McNulty vs. California*, 149 U. S., 645;

*Walston vs. Nevin*, 128 U. S., 578;

*Clark vs. Hancock*, 94 U. S., 493;

*Micas vs. Williams*, 104 U. S., 556;

*Swope vs. Leffingwell*, 105 U. S., 3;

*Whitney vs. Cook*, 99 U. S., 607;

*Hinckley vs. Morton*, 103 U. S., 764;

*Roby vs. Colehour*, 146 U. S., 153.

## II.

It is manifest from the face of the Record that there is no question in the suit which arises under Section 710 of the statutes.

The plaintiff in error claims in its assignment of errors (see Record, p. 38) that the grade-crossing statute of 1889 offends the 10th Section of the Federal Constitution as a law impairing the obligation of contracts, and the 14th amendment, by depriving it of property without due process of law and by denying it the equal protection of the laws.



If the statute is an exercise of the police powers of the State, it must be admitted that neither of these constitutional provisions can be invoked against it.

*First.* As to the impairment of a contract.

The contracts claimed to be impaired are the company's contracts with its bondholders and its contracts, so-called, with shareholders for preference in dividends of profits, both of which kinds of contracts were authorized by the Legislature of Connecticut, by way of amendment of the company's charter, which power of continued amendment, as well as the power of alteration and repeal, abides in the Legislature.

(a) In reference to this claim it would be enough to say that it is only a claim based upon no fact in the finding, and, on the other hand, expressly adjudged by both the Commissioners and the Superior Court to be a false claim.

There is nothing, then, in the case whereon the plaintiff in error can stand to make its claim, and it necessarily falls out of the case and its discussion.

The absolute importance of evidence in the Record to enable the Court to consider such a point is shown by the opinion in

*Dow vs. Beidelman*, 125 U. S., 680, at pp. 690, 691.

(b) But in no case could a law for the preservation of public safety be held to interfere with a person's contracts with his creditors, whether their claims are secured by lien or not.

What answer would it be to a mandate of a health board, ordering the abatement of a nuisance, that the owner of the property was in debt, or that his property, which he was using offensively, was subject to a mortgage?

The expense of regulating the use of property, and even the possibility of its loss by destruction, are written, as an underlying obligation, in favor of public health and safety, upon every item of property in the community, and to this obligation as a part of the supreme law, owners, creditors, and lienors must conform.

No ruling can be found by any intelligent court that creditors of a private individual can interpose their claims and liens to exempt property from the expense of its safe use. How much more absurd is such a claim in behalf of property whose use is public, and by creditors whose claims exist by legislative act, and against the will of the supreme law-making power which made the credit possible?

It is well said in a very recent case tried in January of this year before the Supreme Court of Iowa,

*Ft. Dodge vs. R. R. Co.*, 55 Am. and Eng. R. R. Cases, 58, that even where a road was in a receiver's hands, its obligations of this character must be met at the expense of creditors and everybody else.

The language of the court is, "the burden attaches when the railroad is constructed."

It is to be noticed that this claim is so futile that, while it could have been made before this tribunal in many cases upon legislative acts regulating prices, etc., it doesn't seem to have been esteemed worthy of suggestion unless it were made in *Dow vs. Beidelman*, where it was alluded to by the Court in terms which contain no commendation.

(c) But it has been frequently held that the obligation of no contract is impaired by the governmental acts of a legislature in exercising the police powers of the State.

*Stone vs. Mississippi*, 101 U. S., 814 ;

*Boyd vs. Alabama*, 94 U. S., 645 ;

*Beer Co. vs. Mass.*, 97 U. S., 25 ;

*Stone vs. Farmers L. & T. Co.*, 116 U. S., 307 ;

*Baker vs. Boston*, 12 Pick., 184 ;

*Thorpe vs. Railroad*, 27 Vt., 149 ;

*Barlow vs. Gregory*, 31 Conn., 261 ;

*Lake Hill vs. Cemetery Co.*, 70 Ill., 191 ;

*N. O. Gas Co. vs. L. Light Co.*, 115 U. S., 650, 672.

*Second.* The statute is manifestly not offensive to the fourteenth amendment.

(a) It does not take any person's property.

It seems gratuitous, almost to the degree of impertinence, to attempt to even refresh the memory of the Court with its numerous and exhaustive decisions, that the exercise of the police power of a State does not offend this amendment, although the enforcement of the law brings expense and even confiscation to the property owner.

From many cases we select a few conspicuous ones :

*Barbier vs. Connelly*, 113 U. S., 27,

where the Court says, at page 31 :

"But neither the amendment, broad and comprehensive as it is, nor any other amendment, was designed to interfere with the power of the State, sometimes termed its police powers, to prescribe regulations to promote the health, peace, morals, education, and good order of the people."

And

*Mugler vs. Kansas*, 123 U. S., 623,

a case argued with great ability, and whose opinion is complete and exhaustive, citing all the important adjudications of this Court then outstanding, and from which we quote at page 669 :

"Nor can legislation of that character come within the fourteenth amendment, in any case, unless it is apparent that its real object is not to protect the community, or to promote the general well-being, but, under the guise of police

regulation, to deprive the owner of his liberty and property, without due process of law. The power which the States have of prohibiting such use by individuals of their property as will be prejudicial to the health, the morals, or the safety of the public, is not—and, consistently with the existence and safety of organized society, cannot be—burdened with the condition that the State must compensate such individual owners for pecuniary losses they may sustain, by reason of their not being permitted, by a noxious use of their property, to inflict injury upon the community. The exercise of the police power by the destruction of property which is itself a public nuisance, or the prohibition of its use in a particular way, whereby its value becomes depreciated, is very different from taking property for public use, or from depriving a person of his property without due process of law. In the one case, a nuisance only is abated; in the other, unoffending property is taken away from an innocent owner.

And, again, the very recent case of

*Budd vs. New York*, 143 U. S., 517,

a regulation of prices case, in which your late distinguished associate, Justice Blatchford, gives an opinion characterized by his usual accuracy and wealth of research.

These two cases last cited quote from nearly all the cases in the Supreme Court reports bearing upon this general subject.

If the authority of other tribunals were needed, they could be cited by the score.

We presume to quote from three States only. In a very recent case tried before the Supreme Judicial Court of Massachusetts, and decided last March,

*In re Mayor, etc., Northampton*, 55 A. & E. R. R. Cases, 31, the grade-crossing laws of that State were discussed. Their constitutionality under the fourteenth amendment and under the Massachusetts Bill of Rights was not even questioned by the eminent counsel who were attacking them upon other grounds, and the Court says:

“It is not denied that the subject of the crossing of highways and townways by railroads is one which the legislature may regulate, from time to time, either by general or special laws. The legislature may itself prescribe the manner in which a railroad shall cross a highway in a particular case, or may delegate to a board of public officers, or to commissioners appointed by a court, the power to prescribe the manner in which the general or special provisions of law on the subject may be carried into effect.”

In the State of Connecticut this law and its predecessors, and a special law passed to ensure a separation of grades at Asylum street, in the city of Hartford, have been passed upon a number of times, and in all the cases the fourteenth amendment has been invoked, and in each case held to be ineffectual.

*Woodruff vs. Catlin*, 54 Conn., 295.

*Westbrook's Appeal*, 57 Conn., 104.]

*N. Y. & N. E. vs. Railroad Commissioners*, 58 Conn., 532.

*Woodruff vs. N. Y. & N. E. R. R. Co.*, 59 Conn., 65.

*State's Attorney vs. Branford*, 59 Conn., 402.

*N. Y. & N. E. vs. Waterbury*, 60 Conn., 9.

And see also

*People vs. B. & A. R. R. Co.*, 70 N. Y., 569.

(b) It can hardly be seriously claimed that there is an absence of due process of law by a railroad company which had its day in court, before the Commissioners, and again before the Superior Court, and again before the Supreme Court of Errors. If the company has not had an opportunity to be heard, then the constitution and laws of the State do not afford any.

(c) Nor can the plaintiffs in error complain of inequality of legal protection. There are no discriminations in the law, excepting by way of tenderness to an embarrassed company, which the Court finds this company is not.

*R. R. Co. vs. Emmons*, 149 U. S., 367.

*Davidson vs. New Orleans*, 96 U. S., 104.

*Wurts vs. Hoagland*, 114 U. S., 606.

### III.

That the enactment of the statute under discussion was an exercise of the police powers of the State seems too plain to require argument.

Its sole purpose is public safety. It deals only with the lives, limbs, health, and comfort of travelers upon these two classes of highways.

These purposes are included in every definition and description of these subtle powers, from the judicial utterances on the subject by this bench to the humblest text writer.

The horrors of the "deadly grade-crossing" have stirred public sentiment to forcible expression and action, by legislatures, courts, railroad commissioners, not to speak of the columns of journals, and the voices of philanthropy. The elimination of these horrors is the sole object of the Connecticut statute, which, we submit, is equal, in wisdom and justice to all concerned, to any legislation to be found upon the subject. It aims to suppress a nuisance and has no other aim.

Should the Court desire the construction given to this and similar acts by the highest tribunals of the State, there are a number of decisions which are precisely in point.

In *Woodruff vs. Catlin*, 54 Conn., 277, in which the Federal constitution and the State constitution were invoked against a special law with precisely the same purpose, the Court, in an opinion written by the late



Judge Pardee, one of the most eminent of our Supreme Court Judges, says at page 295 :

“The act, in scope and purpose, concerns protection of life. Neither in intent or fact does it increase or diminish the assets either of the city or of the railroad corporations. It is the exercise of the governmental power and duty to secure a safe highway. The Legislature having determined that the intersection of two railways with a highway in the city of Hartford at grade is a nuisance dangerous to life, in the absence of action on the part either of the city or of the railroads, may compel them severally to become the owners of the right to lay out new highways and new railways over such land and in such manner as will separate the grade of the railways from that of the highway at intersection ; may compel them to use the right for the accomplishment of the desired end ; may determine that the expense shall be paid by either corporation alone or in part by both ; and may enforce obedience to its judgment. That the Legislature of this State has the power to do all this, for the specified purpose, and to do it through the instrumentality of a commission, it is now only necessary to state, not to argue.”

The opinion also calls the grade-crossing a nuisance.

In *Westbrook's Appeal*, 104 Conn., 95, an earlier statute on the same subject was under discussion, and the Court says at page 104 :

“The act in question is an exercise of the police power of the State. Its object is to change or remove certain conditions, lawful in themselves, but which have become a source of danger to life and property.”

In *N. Y. & N. E. R. R. Co. vs. Commissioners*, 58 Conn., 552, the constitutionality of this particular statute was attacked by these very plaintiffs in error against these very defendants in error, and to the opinion in that case, which is too long to quote in a brief, this Court is respectfully referred.

The validity of the Asylum Street Bridge Commission act and of certain of its orders was again attacked by these plaintiffs in error in the case of *Woodruff vs. The New York & New England R. R. Co.*, reported in 59 Conn., at page 64. Many questions are discussed in the case, as there were fifty-two assignments of error, including the fourteenth amendment, and the police character of this act was declared. The dissent in the case was confined to the powers of the commissioners to make the particular order.

In the same volume in a case against the town of Branford the Court again construed this identical statute as in the interest of public safety, and declares the judicial character of the Board of Railroad Commissioners.

See *State's Attorney vs. Selectmen of Branford*, 59 Conn., 411.

Another part of the grade-crossing laws was attacked by these same plaintiffs in error, and the result reported in

*N. Y. & N. E. R. R. Co. vs. Waterbury*, 60 Conn., 1.

The opinion was written by the late lamented Judge Edward W. Seymour. We cite from it at a later stage in the argument, quoting here only these lines at page 9 :

“There can be no doubt of the right of the Legislature to require railroad companies to bridge their crossings of existing highways at their own expense.”

The act under discussion was again considered by the Supreme Court in

*Middletown vs. R. R. Co.*, 62 Conn., 492.

The opinion of Judge Hall, at page 497, says :

“The whole purpose and scope of the act of 1889 seems to be to facilitate the extinction of grade-crossings. It is apparently directed wholly to this deadly menace to public safety.”

The last case upon the subject is the case at bar.

It is incidentally worthy of notice that the Supreme Court of Connecticut, in its membership during these several decisions, has been subject to unusual changes and additions, and there has been no particle of dissent as to the character of these statutes.

It would be abundantly easy to show by the construction of similar statutes of other States by their highest courts, that they are universally regarded as governmental acts within the police powers of the sovereignty.

In view of the many and recent adjudications of this Court, which are in harmony with many other authorities, that the supremacy of public safety is so lodged in the police power of a sovereign State that it cannot be bound, hindered, or limited by the act or contract of any one body of legislators so as to bind succeeding legislatures, it is not deemed necessary to enlarge upon that point.

Nor is it necessary to refresh the memory of the Court with its many decisions in which it has emphatically declined to pass upon the wisdom or good judgment of the legislative supreme authority in exercising this power.

The views of the Court in this matter are concisely stated in

*Railroad Co. vs. Richmond*, 99 U. S., at page 528.

“It is not for us to determine in this case whether the power (police power) has been judiciously exercised. Our duty is at an end, if we find that it exists.”

And see

*R. R. Co. vs. Gibbs*, 142 U. S., 392.

*Paulson vs. Portland*, decided April 17, 1893.

## IV.

In this connection it should be observed that the Connecticut General Assembly is absolutely peculiar in that it retains judicial as well as legislative powers.

The Constitution granted it no power, but limited its existing powers, and there still remain in that body powers which it has had since 1662, and even since 1639, powers judicial and paternal, which are not vested in any other American legislature.

This whole matter is fully set forth in the able and scholarly opinion of Judge Loomis, in

*Wheeler's Appeal*, 45 Conn., 306,

and were it necessary, it could be effectively argued that this whole legislation comes within those peculiar reserve powers of the General Assembly, which are enumerated in *Wheeler's Appeal*, and that, independently of the general police powers of legislative bodies, the Connecticut General Assembly has distinct and peculiar powers borrowed from the powers of the English Parliament, and from the King as *parens patriae*, which would fully justify the legislative act under consideration.

Judge Swift, perhaps the earliest writer of legal commentaries in this country, more than one hundred years ago, reported this as a principle of Connecticut law at pp. 75 *et seq.*, of his admirable treatise. (See *Swift's System*.)

## V.

The act is clearly within the power of the Legislature as amendatory of the charter of the company.

This charter, like the charters of all our railroad companies, was granted with legislative power over it of amendment, alteration, and repeal specifically inserted in it, and was from the first, therefore, subject to just such legislative control.

Mr. Tiedman, in his treatise upon the limitations of police powers, which certainly is not open to the charge of partisanship in favor of such powers, states the general rule upon this branch of our case fairly at page 588 :

“If the power to repeal or amend the charter is reserved to the State, no question can arise ; for in the exercise of the power to amend, the Legislature may require, as a condition of the continuance of the corporate existence, the observance of whatever police regulation it may see fit to establish, in the same manner and to the same extent, that it may impose conditions of every sort and kind, in the original grant of the charter.”

The object and effect of this power to amend is well defined in *Morawetz on Corp.*, par. 1095, and *Black on Constitutional Prohibitions*, par. 34.

The latter authority instances this very duty as a proper one to impose upon railroad companies under the power of amendment.

The case of *Worcester vs. R. R. Co.*, 109 Mass., 103, has been a leading one upon this point. It was argued with conspicuous ability, and the legislative power exercised under the law was unusual, not to say extreme. But the Court declared it to be within the amendatory power of the Legislature over the company's charter, and, in harmony with so many other controlling cases, held that "the Legislature is the exclusive judge" of the public necessities in such cases.

This principle has often been declared by the U. S. Supreme Court, as in the

*Sinking Fund Cases*, 99 U. S., 700,  
relative to the amendatory powers of Congress, and

*Water Works vs. Schottler*, 110 U. S., 347,  
relative to similar powers in state legislatures.

The act in question is expressly held by the Connecticut Supreme Court to be an amendment of this company's charter.

Transcript of Record, page 34.

And the Supreme Court of Connecticut says, in the case already cited of *N. Y. & N. E. R. R. Co. vs. Waterbury*, 60 Conn., at page 8.

"The charter of the New York & New England Railroad Company is not what is called a close charter, but is subject to legislative amendment. All general laws and mere matters of police regulation, affecting corporations, are binding without their assent. *New Haven & Derby R. R. Co. vs. Chapman*, 38 Conn., 71. The act in question has the effect of an alteration of the charter of company, previously incorporated by a charter which did not impose the duty, but which contained a provision that it might be altered at the pleasure of the Legislature. *Bulkley vs. New York & New Haven R. R. Co.*, 27 Conn., 479."

The legislative power of amendment of this company's charter herein judicially announced, is, of course, indisputable. It was originally put in the charters of the antecedent companies to whose franchises the plaintiff in error has succeeded.

See Private Laws, Conn., Vol. IV, p. 912, § 18 ;

or Vol. V, p. 547, § 10 ;

and it is also amendable by the general laws of the State.

General Statutes, § 1909.

## VI.

It is certainly unnecessary to argue that this act is no endeavor under the guise of a governmental power to confiscate property. It wears no guise. It is a direct fulfillment of a duty to the public by the Legislature. Should such a claim be raised, that the supreme law-making



power, in enacting this statute, sought, under the guise of its police powers, to confiscate the property of its railroad corporations, it would be at once reduced to absurdity by the record in this case, wherein it appears that, by the solemn and final judgment of the highest local tribunals, the enforcement of the act in this instance is to remove a grade-crossing whose "removal is required" for "the safety of the public."

Nor can it be necessary to argue that there is a public use of railroad property, and that the regulation of this use by the Legislature is continuous and complete.

In the case of

*Georgia Banking Co. vs. Smith*, 128 U. S., 174.

the opinion says, at pages 179, 180 :

"The incorporation of the company, by which numerous parties are permitted to act as a single body for the purposes of its creation, or, as Chief Justice Marshall express it, by which 'the character and properties of individuality' are bestowed 'on a collective and changing body of men,' *Providence Bank vs. Billings*, 4 Pet., 514, 562 ; the grant to it of special privileges to carry out the order of its incorporation, particularly the authority to exercise the State's right of eminent domain that it may appropriate needed property—a right which can be exercised only for public purposes ; and the obligation, assumed by the acceptance of its charter, to transport all persons and merchandise upon like conditions and upon reasonable rates, affect the property and employment with a public use ; and where property is thus affected, the business in which it is used is subject to legislative control. So long as the use continues, the power of regulation remains, and the regulation may extend not merely to provisions for the security of passengers and freight against accidents, and for the convenience of the public, but also to prevent extortion by unreasonable charges, and favoritism by unjust discriminations. This is not a new doctrine, but old doctrine, always asserted whenever property or business is, by reason of special privileges received from the government, the better to secure the purposes to which the property is dedicated or devoted, affected with a public use. There have been differences of opinion among the judges of this Court in some cases as to the circumstances or conditions under which some kinds of property or business may be properly held to be thus affected, as in *Munn vs. Illinois*, 94 U. S., 113, 126, 139, 146 ; but none as to the doctrine that when such use exists the business becomes subject to legislative control in all respects necessary to protect the public against danger, injustice, and oppression."

Nor need it be argued that the entire expense of abating a nuisance may be placed by the government upon a party making the nuisance, even though others contribute with him to the result.

See the Connecticut cases before cited.

*Kingman and Other Petitioners*, 153 Mass., 566.

*People vs. B. & A. R. R. Co.*, 70 N. Y., 569.

The decisions of this Court upon that point are assembled in the late case of

*Railroad vs. Gibbes*, 142 U. S., 386,

at page 395, and are controlling.

In the list is the case of

*R. W. Co. vs. Alabama*, 128 U. S., 174, 179.

And the Gibbes case, an important case for the treatment of the case at bar in many features, says at page 395 :

“In such instances, where the interest of the public and of individuals are blended in any work or service imposed by law, whether the cost shall be thrown entirely upon the individuals or upon the State, or be apportioned between them, is matter of legislative direction.”

The power to apportion the expense of abating a nuisance among different parties necessarily includes the power to put the entire expense upon one class of contributors to the result. If the Legislature has this power, the wisdom or unwisdom of a special enactment doesn't affect the constitutionality of the act.

There were, in 1890, 1,005 miles of railroad in the State and 1,147 grade-crossings (Railroad Commissioners' Report, 1890). The act, if obeyed, secures the elimination, at the expense of the companies, of sixteen grade-crossings in each year. To seriously claim that such a law is unjust, unequal, or unfair, seems hardly worthy of discussion. It neither offends the fourteenth amendment of the Federal Constitution, nor any principle of natural justice or of any justice known to modern civilization. The requirement is more lenient to the railroad companies than the laws of sister States.

It is noticeable also that this feature of the law is only enforceable against such companies as have failed to contribute to the gradual elimination of grade-crossings by removing such crossings as they themselves may select in compliance with other provisions of this act.

## VII.

The case at bar raises this single question.

Can a railroad company, which is a creature of the General Assembly and whose charter is and has always been amendable and repealable, successfully defy the merciful and enlightened efforts of that supreme body to protect life within the borders of the commonwealth, by laws which are approved by the best civilization of the day and sanctioned by the highest judicial tribunals, and all this after a full, fair, and impartial hearing before the highest judicial authorities of the State ?

HENRY C. ROBINSON,  
JOHN J. JENNINGS,

*Counsel for Defendants in Error.*

NEW YORK AND NEW ENGLAND RAILROAD COMPANY VS. TOWN  
OF BRISTOL, HENRY W. GRIDLEY ET AL.

BRIEF FOR PLAINTIFF OPPOSING MOTION TO DISMISS OR AFFIRM.

## STATEMENT.

In 1889 the Legislature of the State of Connecticut passed a law (Chap. 220 of the Public Acts of 1889), the provisions of which, so far as here in question, read as follows :

"The directors of every railroad company which operates a railroad in this State shall remove or apply for the removal of at least one grade crossing each year for every sixty miles of road operated by it in this State, which crossings, so to be removed, shall be those which, in the opinion of said directors, are among the most dangerous ones upon the lines operated by it; and, if the directors of any railroad company fail so to do, the Railroad Commissioners shall, if, in their opinion, the financial condition of the company will warrant, order such crossing or crossings removed as, in their opinion, the said directors should have applied for the removal of under the above provisions; and the Railroad Commissioners, in so doing, shall proceed in all respects as to method of procedure and assessment of expense as if the said directors had voluntarily applied therefor."

The last clause has reference to the following provisions of the statute:

"If the aforesaid petition is brought by the directors of any railroad company, or in behalf of any railroad company, they" (the commissioners) "shall order the expenses of such alterations or removals, including the damages of any person whose land is taken, and the special damages which the owner of any land adjoining the public highway shall sustain by reason of any change in the grade of such highway, in consequence of any change, alteration, or removal ordered under the authority of this act, to be paid by the railroad company owning or operating the railroad in whose behalf the petition is brought."

In September, 1890, the Railroad Commissioners of the State of Connecticut made an *ex parte* finding that the plaintiff's directors had failed to remove or apply for the removal of any highway grade-crossing during the year ending August 1, 1890, and that, in the opinion of the commissioners, they should have applied for the removal of the Main street grade crossing in the town of Bristol, and thereupon issued an order for a hearing of the town, the railroad company, and sundry land owners about the changes to be made. The hearing was had, and it appearing what the changes of the railroad and the highways were, which would be necessary for the removal of this grade crossing, these exceedingly expensive changes were ordered, and under the order of the commissioners (if that is valid), are to be executed by the plaintiff at its sole expense.

The plaintiff appealed from this order to the Superior Court, and thence to the Supreme Court of Errors, on the ground chiefly that the

order and the statute under which it was made violated certain provisions of the Constitution of the United States. (See pages 4 and 5 and 27-29 of the Record.)

The Supreme Court of Errors overruled plaintiff's claims under the Constitution of the United States, and their decision to this effect has been brought here for revision by a writ of error.

For the purposes of this motion to dismiss, it seems necessary to do no more than state the federal questions arising on the record.

## I.

It is conceded that in Connecticut the existing grades of both the railroads and the highways crossing them were legally established. When plaintiff's railroad was built through the town of Bristol many years ago, the legislature had enacted a special law giving to plaintiff's predecessor the right to cross highways, but at the same time giving to all persons sustaining damage from interference by the railroad company with a highway the same rights as to a judicial assessment of damages which were given to persons whose land was taken. It is a matter of common knowledge that, in a large proportion of the cases, crossings were constructed as they now exist only because the public so demanded. If the public had so desired, the railroad in this uneven country might, without additional expense, have been constructed in such a way as not to cross these highways at grade. But the people wanted the railroad on a level with the highways, so that it might be more accessible from these highways and from adjoining factory sites.

By an Act of the Connecticut Legislature (of which, under Section 1087 of the General Statutes, our Courts are required to take judicial notice), to be found in Vol. IX of the Special Laws, at page 64, it was provided as follows :

"The locations of the several railroad corporations in this State, of which the New York & New England Railroad Company has become and is a successor, and the construction of said road by and upon its center line, and as adopted and in use by it, are hereby ratified, confirmed, and approved, and the same shall stand good and be for the use and benefit of said New York & New England Railroad Company."

So matters legally stood when this Act of 1889 was passed.

The most dangerous crossings in the nature of the case are located at centers of population, for there the buildings shut out the view, and there the travel on the highways is much greater. In many cases (as, indeed, at Bristol) there was open, thinly-settled country about the crossing when the railroad was built. Now, around the railroad station and along the track has sprung up a thriving and populous manufacturing town.



On this account the highway at the crossing seems no longer safe enough for those who use it.

In the State of Connecticut the duty of providing and caring for highways is laid upon the towns. In general, the towns are required to keep the highways safe for the increased travel of a growing community. The highways are chiefly for the benefit of the local public and therefore the local municipal corporation is required to keep them safe.

By the law of 1889 the four railroad companies operating railroads in Connecticut are singled out for treatment never accorded to other citizens. The State says to them :

"Make new highways for the public near your railroad tracks. Move your railroad. Move the highways. Alter the level both of your railroad and the neighboring highways. It will be necessary to acquire land in the very heart of the town. It will be necessary for you to abandon your present layout, which you hold — not in fee, but only for railroad uses, and will therefore lose by this abandonment. It will be necessary to tear down large and substantial buildings. For a change of grade of the highways large damages will be payable to the adjacent landowners. All this will be very expensive. We wish to save the taxes that would be necessary if the public paid for any part of such extensive highway improvements. In all other cases of highway changes we make the owners of adjoining property pay only for special benefits judicially assessed. (Gen. Statutes, Sec. 2706.) But you are railroad corporations, and we propose to get the cost of this expensive engineering work out of you, irrespective of any benefits to you."

Plaintiff claims that in this respect it has been denied the equal protection of the laws to which it is entitled under the Federal Constitution as a citizen of the United States.

It is held by the Supreme Court of Connecticut that a justification of this order of the commissioners is found in the consideration that the railroad company is responsible for its railroad as the town is for the highway, and that it is by the meeting of the two ways at grade that the danger is caused which the State is attempting to remove.

"Two parties" (the town and the railroad company) "are engaged in legitimate business. . . . Both furnish ways to facilitate public travel. The way of each crosses that of the other at grade, and more or less danger unavoidably attends their use. As the use increases the danger increases. The policy of the State now is to abolish these grade crossings as rapidly as can be reasonably done. Legislation on this subject assumes that each party, in the discharge of its duty, is concerned in creating the danger, and that each may justly be required to contribute to the expense of its removal, etc."

N. Y. & N. E. R. R. Co.'s Appeal from R. R. Commissioners,  
58 Conn., 532, 540.

If this were a case where the railroad company were merely required to bear its just share of the expense of removing a source of danger, this reasoning would deserve careful consideration. If the Railroad Com-

missioners and the Superior Court, after a fair hearing of both the plaintiff railroad company and the defendant town, had ascertained the degree of responsibility of each of the parties and had judicially assessed upon each a corresponding share of the expense, the case then presented would differ widely from that at bar. But, although it is admitted that justice would require the town to pay some, and perhaps a large part, of the expense (see the end of the quotation on page 35 of the Record), nevertheless the town is favored by an exemption from its just share of the burden, and the other interested party before the commissioners is by the terms of the law required to bear the burden of both. In other words, even in this aspect of the matter, as between it and the town, the railroad company is denied the equal protection of the laws.

## II.

Plaintiff claims that by virtue of this law and the order made thereunder, its property is taken without due process of law.

### 1. AS TO THE TAKING OF PLAINTIFF'S PROPERTY.

The order of the Railroad Commissioners, which stands affirmed by the highest court of the State, requires the plaintiff (Record, p. 9,) to remove its tracks eighty feet to one side of its present location. It follows of course that this cannot be done at the main street of a thickly-settled manufacturing town without destroying brick buildings which now stand on private property where the tracks are to be. The company is furthermore, by the terms of the order, to excavate Main Street, and also *communicating highways* not crossing the railroad (to wit, North Main Street and Prospect Street), so as to make convenient grades for travel on these roads, and is to build over Main Street a double track iron bridge with stone abutments. The order closes as follows:

"All of said alterations, changes, and removals to be made and done by said railroad company, and the expense thereof, including the damages to any person whose land is taken, and the special damages which the owner of any land adjoining the public highways shall sustain by reason of any change in the grade of such highways in consequence of any change, alteration, or removal above ordered, to be paid by said railroad company."

### 2. AS TO DUE PROCESS OF LAW.

(a.) The Supreme Court of Connecticut justifies this taking of plaintiff's property by the following reasoning:

"This statute is in its operation an amendment to the charter of each of the railroad corporations affected by it. It imposes on the plaintiff, being a corporation of that kind, an obligation which previous to its passage the charter of the plaintiff did not impose; but as that charter contained the provisions that it

might be altered at pleasure by the legislature, the statute is binding upon it." (Record, p. 34.)

The scope of this claim seems wider than that of the claim made in support of the attack by the Legislature of New York on the Broadway Surface Railroad Company, yet the New York Court of Appeals held that claim to be contrary to the constitution in *People vs. O'Brien*, 111 N. Y., 1. In that case all that was attempted to be affected was a franchise created by an amendable charter. The Supreme Court of Connecticut holds, that because the charter of a corporation may be amended, there is no limitation on the rights of the legislature over the property of that corporation.

The plaintiff desires at the proper time to argue that the right to amend the charter of a corporation does not include the right to arbitrarily deprive the stockholders of this corporation of what in substance is their property, held by them, it is true, for purposes of management and control under a corporate organization created by a special law, but being nevertheless private property — not by virtue of any charter, but by force of the most fundamental and general laws of modern society, which from their nature necessarily protect alike and fully all legitimate acquisitions of the members of the community, no matter whether held by them as individuals, or partnerships, or associations, or corporations.

(b.) In this connection it should be noted in passing, that the law in question does not by its terms lay a burden on the corporation which built the railroad, nor on the corporation which owns it, but only on the corporation which operates the railroad, and which does not need any special franchise to do this. It may be mentioned for purposes of illustration that one of the four corporations operating a railroad in Connecticut to which this act applies, is not a corporation of the State at all.

(c.) The only other reasons given by the Supreme Court of Connecticut in justification of the taking of plaintiff's property are found on page 35 of the Record, in the form of a quotation from one of its prior decisions. From this reasoning of the Court, it appears that the town and the railroad company — not as wrong doers, but each "in the discharge of its duty — is concerned in creating the danger" which exists upon a highway where it crosses a railroad at grade. "So far as towns are concerned, it is a duty that has ever devolved upon them to keep the highways reasonably safe." "Railroad companies, in some sense, are but agents of the government in affording to the public a more expeditious and vastly improved method of travel" on their own private property.

Therefore, so runs the conclusion, since the legislature has the right to provide and maintain the public highways through the instrumentality

of towns, it may also authorize a board of railroad commissioners to compel railroad companies in their capacity of "governmental agents" to make the neighboring public highways safe.

As to this, the plaintiff desires at the proper time to submit argument to the effect that calling a railroad a highway does not make the person or corporation operating the railroad a piece of governmental machinery like the town, and that because a State may lay taxes through the agency of the towns, and so pay for a public service, it does not follow that it may force a private corporation to use up its private property for the same purpose.

(*d.*) In the latter part of this quotation on page 35 of the Record, the Court suggests another idea which may be stated as follows: Grade crossings are, it is true, not really nuisances. Those who maintain them are not liable for so doing, either criminally or civilly. They have been created, not wrongfully, but with the express sanction of law. Still in a certain popular sense they may be called nuisances.

"Therefore," the Court says, "we think it is competent for the State to cause them to be abated, and they may require any party responsible for their existence to pay any part or all of the expenses. That being so, requiring the railroad company to pay three-fourths of the expense, however just it might be to require the town to pay more than one-fourth, it is not a matter of which the railroad company can legally complain. The statute may operate harshly, as all statutes are liable to in certain cases, but it is not unconstitutional."

In other words, the Supreme Court of Connecticut justifies the arbitrary subjection of a railroad company to a heavy burden, part of which it admits justly belongs on the town, by applying the principle that there is no contribution between wrong-doers. This is stated as follows in another part of that opinion from which the Court makes the above quotation:

"If the legislature should require the division of joint property between two persons equally interested in such a manner as to give one three-fourths and the other but one-fourth, it would be indefensible, being against natural right and not due process of law. So, too, of a statute that should attempt to compel one of two joint obligors, jointly and equally interested, to assume the whole obligation as between themselves. But the case before us is not a case in which the legislature is attempting to apportion joint property, or a joint contract obligation between the parties, but is a case of curing an evil where both parties in some measure, but in different degrees, are responsible for the evil. If two jointly commit a tort, whereby another is injured, the law will compel either party to pay the whole damage; and ordinarily no contribution is allowed."

N. Y. & N. E. R. R. Co.'s Appeal from Railroad Commissioners,  
58 Conn., 539.

Yet, in the same opinion, the Court admits that the railroad company is not truly a wrong-doer. As they state it, the town and the rail-



road company are both engaged in "legitimate business." "Both furnish ways to facilitate public travel. The way of each crosses that of the other at grade, and more or less danger unavoidably attends their use. As the use increases the danger increases." In the Town of Westbrook's Appeal, 57 Conn., 104, the Connecticut Supreme Court says, speaking of the Act for the removal of grade crossings :

"Its object is to change or remove certain conditions, *lawful in themselves*, but which have become a source of danger to life and property."

The plaintiff desires, when this case is finally heard, to argue that a metaphor is not a legal principle, that there is here admittedly no case of a legal nuisance or of a legal wrong of any kind committed by plaintiff, but that the State is dealing in this law and the proceedings of the railroad commissioners thereunder, with crossings which were created in their present form nearly fifty years ago with full legislative authority, and which have received additional legislative sanction, less than fourteen years ago; and that the State of Connecticut, in applying to the plaintiff, in a case of this kind, rules applicable to joint tort-feasors, covers with only a thin disguise the taking of plaintiff's property without due process of law.

(e.) It is suggested that the plaintiff has had a hearing, and that this is enough to constitute due process of law.

As to what has plaintiff been heard?

The Supreme Court of Connecticut has repeatedly held, even in the decisions against railroad companies above quoted, that the danger at grade crossings is one for which the railroad company cannot in any view be considered solely responsible.

Speaking of the responsibilities of towns to pay for changes required in the removal of railroad grade crossings, in Town of Westbrook's Appeal, 57 Conn., 104, the Supreme Court of Connecticut says :

"The object is to change or remove certain conditions, *lawful in themselves*, but which have become a source of danger to life and property. The remedy consists in requiring *those charged with the duty of maintaining the highways* to change the conditions and hereafter discharge their duties in such a manner as to avoid the danger. It is doing no more than has been done for a long time. *Towns* have always been required to keep highways and bridges safe."

In *Woodruff vs. Catlin*, 54 Conn., 295, the questions before the Court related to the crossing of the tracks of two railroad companies by Asylum street in Hartford. The Court held that the city and the two railroad companies, the meeting of whose ways caused the danger, were responsible for it, "in as yet unmeasured and unknown proportions." In that case a tribunal heard the parties fully as to the extent of their several responsibilities, and assessed its just share of the expense of remov-

ing the grade crossing upon each of the three corporations. This is the sort of hearing plaintiff claims a right to, and this hearing plaintiff has never had.

The Railroad Commissioners, moreover, selected *ex parte* this one out of the most dangerous crossings on the line of plaintiff's railroad without any consideration of the expense of removing it, compared with that of removing other equally dangerous crossings, and without any consideration of the degree of responsibility of the railroad company for the dangers existing at this particular crossing. In their first order of notice they announced this determination. Plaintiff, under the statute of Connecticut, as now interpreted by the highest court of that State, had no right to be heard as to these matters to it so important.

There was a hearing on the question, how the highway should be carried over or under the railroad. There was also a hearing as to whether plaintiff's financial ability warranted the order. But before the hearings began at all it was settled by the prejudgment of this extraordinary board of three men, that this particular one among the more dangerous crossings was the one to be removed, and, as a necessary consequence under the law, that no matter how much of the danger at the crossing is created by the condition of the adjoining highways for which the town of Bristol is alone responsible — no matter even, if on investigation, it could be shown that in this case the railroad company is not responsible for any of the danger at the crossing, nevertheless, the railroad company is to pay for the whole work ordered.

Moreover, it should be noted that the railroad company is not required by this order to merely make reasonable changes in the grade of its railroad. Not only is it ordered to move its railroad tracks over on to ground now occupied by substantial buildings, owned by private persons, and to build a costly bridge, but it is also ordered to go entirely outside of its own location and make safe and comfortable grades not merely on Main street, but on two other compactly-built-up streets, named in the Record at page 9, which do not cross the railroad at all, and is even to pay "the special damages which the owner of any land adjoining the public highways shall sustain by reason of any change in the grade of such highways."

It seems to the plaintiff that, when it is denied a hearing as to all the matters of primary importance, it is a hollow mockery to talk about its having its day in court, because it is allowed to be heard on a question so narrowed as merely to mean whether it can get money to pay this bill, or because its engineers are allowed to suggest modifications of the plans presented, so as to obviate the ordering of impracticable railroad construction.

## III.

In its petition of appeal the plaintiff alleged in paragraphs 2-10 certain notorious facts, all going to sustain its claim of law that the commissioners' order appealed from impaired the obligation of its contracts with the holders of its bonds and preferred stock. (See Record, p. 4.)

In the Superior Court the counsel for defendants moved to strike out these allegations. This motion was granted, and plaintiff excepted.

The ruling was that the facts alleged would be admissible in evidence in so far as they might bear on the issue raised under the language of the Connecticut Statutes as to plaintiff's financial ability to pay for the work ordered. Plaintiff was allowed to allege only "that the company is not of sufficient ability to execute the work of making the proposed changes." (Record, p. 17.)

By the statute under which the commissioners acted, they are to order some of the most dangerous crossings removed, "if in their opinion the financial condition of the company will warrant." The Supreme Court of Connecticut has now decided (Record, p. 36) that no question of law can be raised as to the extent of the burdens which a certain amount of financial ability will warrant. The Railroad Commissioners are held to have jurisdiction to order the removal of the grade crossing—not on condition that the financial condition of the company does in truth warrant the order, but merely on condition that they have an opinion that the company's financial condition will warrant the order. It follows, of course, that if the Superior Court, on appeal, thinks the company's financial condition will warrant the order, it is only necessary to say so. It is not necessary to make any finding about the company's financial condition, because there is no question to be raised as to what that would really warrant, but only as to what may be the opinion upon that point of the authority issuing the order. The Court, so far as this issue raised under the Connecticut Statutes is concerned, did all that was required when it found (Record, p. 20) that the plaintiff is of sufficient ability to execute the order of the Railroad Commissioners, and that its financial condition is such as to warrant the order.

But the issue raised by plaintiff, under the Constitution of the United States, could not lawfully be thus summarily disposed of. On this issue it is not enough that the Court should satisfy itself that there is money enough coming in, as gross earnings, to pay for the work ordered. The question is whether the appropriation of the very large sum required for this work does not impair the obligation of the contracts made by the company with the holders of its securities under the special sanction of the laws of Connecticut?

The plaintiff claimed to have proved all the facts alleged in paragraphs 2 to 10 struck out by the Court, but, in accordance with the ruling striking out these paragraphs, the Court would not consider them on the issue raised under the Constitution of the United States, and refused to make any finding with regard to them.

The Superior Court not only refused to find what, in fact, the financial condition of the plaintiff was proved to be, but refused to take any notice whatever of the issues raised in the above paragraphs. The plaintiff expressly called the attention of the Supreme Court of Connecticut to this error by the following paragraph of its reasons of appeal :

"11. Because the judgment does not meet the issues. There is no general finding of the issues against the plaintiff, and no finding as to issues raised in paragraphs 11 and 17." (Record, p. 29.)

The Supreme Court, in its opinion, affirms the error of the lower court. It has held (Record, p. 37) that "all the material issues in the case were disposed of by the finding and the judgment." It has held that upon the most liberal construction for the plaintiff the only questions in the case "upon which there could be any issue" were three narrow issues specifically stated. (Record, p. 36.)

So, as appears from the Record, the highest court of the State of Connecticut has overruled plaintiff's claim that the order passed by the Railroad Commissioners was void under Article 1, Section 10, of the Constitution of the United States, not by finding that this order does not impair the obligation of contracts, but by quietly omitting this claim of plaintiff, distinctly made by means of paragraphs 2 to 12 of its petition of appeal, from among the material issues in the case, on the ground that this "could not" be an issue in the case.

The plaintiff desires at the proper time to argue before this Court that the State Court erred in refusing to plaintiff the right to make and have considered this issue under the United States Constitution.

#### BRIEF.

The motion now under consideration raises only the question of the jurisdiction of this Court. It plainly appears on the face of the Record that in this suit was drawn in question the validity of a law of the State of Connecticut and of an authority exercised thereunder, on the ground that they are repugnant to the Constitution of the United States; that the decision of the highest Court of that State is in favor of the validity of that law and that authority; and that the judgment of the Court below necessarily involves the denial by the State Court of a right and



immunity claimed by the plaintiff under the Constitution of the United States.

There is nothing in the brief submitted for defendants to sustain the allegation of the motion to dismiss. That brief is purely an argument on the merits of the cause in support of the motion to affirm.

Counsel for plaintiff does not understand that this Court desires to have its time consumed with motions of this character unless the federal questions involved are really so frivolous as to show that the appeal is not taken in good faith, but is taken simply for delay. He believes that the foregoing brief statement of these questions, or, indeed, a simple inspection of the Record, should be enough to relieve him from the charge of a lack of good faith toward this Court, and should show that he is entitled to be heard in due course.

Moreover, this Court has repeatedly held that, unless the Record shows at least a color of right to a dismissal, it will not consider the motion to affirm.

*Whitney vs. Cook*, 99 U. S., 607.

*School District of Ackley vs. Hall*, 106 U. S., 428.

*Hinckley vs. Morton*, 103 U. S., 764.

*Davies vs. Corbin*, 113 U. S., 687.

*New Orleans vs. Louisiana Construction Co.*, 129 U. S., 45.

*Amory vs. Amory*, 91 U. S., 356.

There being in the present instance no possibility of a serious claim that the case is without the jurisdiction of this Court, counsel for plaintiff does not consider it proper to now occupy the attention of the Court with an argument on the merits of the questions involved, nor with a discussion of authorities, but asks the right to be heard on the merits of the cause at the time when the Court under its rules shall afford to the parties an opportunity to be so heard. The following are some of the cases the bearing of which on the case at bar counsel desires to consider in the brief to be then submitted :

*Santa Clara County vs. So. Pac. R. R.*, 118 U. S., 394.

*Charlotte, Columbia & Augusta Railroad Co. vs. Gibbes*, 142 U. S., 386, 391.

*Yick Wo vs. Hopkins*, 118 U. S., 356.

*Chicago R. R. Co. vs. Minnesota*, 134 U. S., 418.

*Lent vs. Tillotson*, 140 U. S., 316, 328.

*Soon Hing vs. Crowley*, 113 U. S., 703.

*Murdock's Case*, 7 Pick., 328.

*Murdock vs. Phillips Academy*, 12 Pick., 262, 265.

EDWARD D. ROBBINS,

*Counsel for Plaintiff.*

## STATE OF CONNECTICUT.

OFFICE OF THE RAILROAD COMMISSIONERS,

HARTFORD, NOV. 25, 1893.

Be it remembered, that the Fair Haven & Westville Railroad Company presented to us its petition, dated August 26, 1893, as follows, viz. :

To the Honorable George M. Woodruff, William O. Seymour, and Alexander C. Robertson, Railroad Commissioners of the State of Connecticut :

The petition of the Fair Haven & Westville Railroad Company, a corporation duly chartered by the General Assembly of the State of Connecticut, and located at, and operating its lines within the town of New Haven in said State, respectfully represents :—

1. That said corporation was chartered in the year 1860, and soon thereafter constructed a track at grade across the tracks of the Hartford & New Haven Railroad Company, now constituting the freight branch, so-called, of the New York, New Haven & Hartford Railroad Company in Bridge Street, within the city of New Haven, from East Street to the steamboat dock.

2. From the time of said construction to the date hereof the petitioner has run its cars over said route between said steamboat dock and the center of the city of New Haven.

3. That by the General Assembly of the State of Connecticut in 1893, the petitioner was given authority to double track said line, subject to the conditions of the General Street Railroad Law, passed at said session, and was further authorized to lay a double track on Water Street and Bridge Street from the steamboat dock to the Union Depot, said Water Street branch to intersect with the Bridge Street branch at a point just westerly of said railroad crossing.

4. At the same session of the General Assembly, the New Haven & Morris Cove Railroad Company, a corporation duly chartered by the General Assembly of 1889, and located in said town of New Haven, and operating a single track electric railroad from said steamboat dock to Morris Cove, so-called, upon the easterly shore of New Haven Harbor, was given permission to operate its cars over the tracks of the Fair Haven & Westville Railroad Company, from its present terminus at steamboat dock to said Union Depot.

5. On the 3d day of July, 1893, the petitioner, pursuant to the provisions of the General Street Railroad Law, submitted to the Mayor and Court of Common Council of the city of New Haven its plans for

the double tracking of said Bridge Street from said steamboat dock to said depot, and through said Bridge Street to East Street, and prayed that the same might be approved.

6. On the 16th day of August, 1893, said plans having been approved by a large majority of the members of each branch of the Court of Common Council, were duly approved by the Mayor of said city of New Haven.

7. Subsequently, on the 23d day of August, 1893, the Board of Public Works of said city, pursuant to the orders of the Court of Common Council, duly designated the kind of pavement to be laid between and on each side of the rails over said route, and designated the kind of rails to be laid at all curves on said route.

8. The petitioner further represents that the lines of sight at said crossing are so unobstructed, and the speed of such railroad cars and trains as pass over said crossing is so low, and said crossing is so thoroughly protected by gates, signals, and flagmen, that the danger of crossing by a double track is not materially greater than by the single track now lawfully laid and operated over said crossing.

9. The petitioner further represents that it would be in a high degree impracticable to operate its own cars over both branches of said route in connection with the cars of the New Haven & Morris Cove Railroad Company over a single track at said crossing.

10. The petitioner further represents that public convenience and necessity require a double track at said point in order to satisfactorily accommodate the patrons of both of said railroads between said steamboat dock and said Union Depot, and between said steamboat dock and the center of the city of New Haven.

11. The petitioner further respectfully represents that by the General Assembly of 1893 it was further authorized to construct a double track across said freight branch of the New York, New Haven & Hartford Railroad Company in the line of Chapel Street, and that its plans therefore were at the same time with the plans hereinbefore mentioned, duly approved by the Mayor and Court of Common Council of the city of New Haven, and by the Board of Public Works of said city.

12. Public convenience and necessity demand an extension of the petitioner's lines over the route aforesaid, so as to connect by a belt line with its tracks on Grand Avenue, and furnish accommodation to a large number of residents upon and near East Chapel Street and East Pearl Street.

Wherefore, the petitioner prays that its plans (copies of which will be filed with the Clerk of this Board prior to the hearing upon this ap-

plication) for laying double tracks through said Bridge Street and through said Chapel Street may be approved.

Dated at New Haven, this 26th day of August, 1893.

THE FAIR HAVEN & WESTVILLE RAILROAD COMPANY,

JAMES T. MORAN, AND WATROUS & BUCKLAND,

*Its Attorneys.*

Upon which petition the following order for hearing and of notice was by us made on the 29th day of said August, viz.:

STATE OF CONNECTICUT,

OFFICE OF THE RAILROAD COMMISSIONERS,

HARTFORD, August 29, 1893.

Upon the foregoing petition, it is ordered that the same be heard at Room No. 3, Union Depot, New Haven, Conn., on Tuesday, the 19th day of September, 1893, at 11 o'clock A. M., and that notice thereof be given to the petitioner, and to the New York, New Haven & Hartford Railroad Company, by Henry F. Billings, by depositing in the post-office at Hartford, postage paid, true and attested copies of said petition, and of this order, addressed, one to the Fair Haven & Westville Railroad Company, New Haven, Conn., and one to William D. Bishop, Jr., Secy. New York, New Haven & Hartford Railroad Company, Bridgeport, Conn., on or before the 5th day of September, 1893.

GEO. M. WOODRUFF,	} <i>Railroad Commissioners.</i>
WM. O. SEYMOUR,	
ALEX. C. ROBERTSON,	

And said time of hearing having been by agreement postponed till the 13th day of October, 1893, we met at the place named in said order, when the petitioner appeared to prosecute its said petition and said New York, New Haven & Hartford Railroad Company also appeared and filed its answer and defenses as follows, viz.:

THE FAIR HAVEN & WESTVILLE RAILROAD COMPANY

*vs.*

THE NEW YORK, NEW HAVEN & HARTFORD RAILROAD  
COMPANY.

Answer of said New York, New Haven & Hartford Railroad Company to the application of the Fair Haven & Westville Railroad Company, dated the 26th day of August, 1893, praying that certain plans for the laying of double tracks through Bridge Street and through Chapel Street in the City of New Haven may be approved.



*First Defense.*

1. As to the allegations of paragraphs 1 and 2, this defendant has no sufficient knowledge, and leaves the same to be proved by the plaintiff if it sees cause so to do.

2. This defendant denies paragraphs 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 of said application.

*Second Defense.*

The defendant is a corporation chartered by and organized under the laws of this State, for the purpose of engaging, and is, and has been for many years last past, engaged in transporting, for hire and reward, freight and passengers from and to different places within and without the limits of this State.

To accomplish the purposes of its charter, and to enable it to discharge its duty to the public as such common carrier, it has at great expense acquired real estate and other property, has located, built, maintained, and is operating lines of railroad and track between such places, and has at great expense equipped its said lines with rolling stock.

To enable this defendant to perform its functions, and to discharge its duties as such common carrier of goods, wares, merchandise, and persons, this defendant did, many years since, purchase for a valuable sum of money, and now holds and owns in fee simple, the soil and real estate at the points where, and upon which the plaintiff intends to locate, establish, and operate its said tracks and railroad referred to in its application.

This defendant many years since located, constructed, and established, and has ever since maintained and operated, and still continues to maintain and operate, as such common carrier, said lines of railroad and tracks, in and upon said soil and real estate so owned by it, at the points and places where and upon which the plaintiff desires and intends to locate and operate its tracks and railroad, and where the soil and real estate of the defendant is crossed by said Bridge, Water, and East Chapel Streets, and at the points referred to in the plaintiff's application.

The defendant further says that it must, and intends, and desires to continue to use said tracks and its said real estate for said purposes, and that it is indispensable to the exercise of its powers and the proper discharge of its duty as such common carrier, that this defendant should so continue to use its said tracks, railroad, and property without interference, hindrance, or molestation by this plaintiff or any other person whatsoever; and that the use of said real estate and tracks at said points, by this defendant, is constant and ought to be exclusive, and that the due and proper use of defendant's track and real estate practically excludes all other persons from any use or occupancy of said real estate; and that

the intended construction and operation of the plaintiff's line of tracks in, and upon defendant's property, and across its said real estate and tracks constitutes a taking of the defendant's property, and is of great damage to the defendant. Such construction and operation will constitute a solid, permanent construction of wood, stone, and iron ties and rails, and other appurtenances in and upon the defendant's property so appropriated and devoted to public use, and greatly and permanently impede and interfere with the necessary and proper use and operation of the defendant's railroad and tracks, and in the discharge of its functions as a common carrier.

And this defendant further says, that the construction and operation of the plaintiff's contemplated line of road and tracks will result in great and direct pecuniary loss and damage to the defendant, as well as in imminent liability to future and further loss.

And the defendant further alleges, that the plaintiff's application to cross the defendant's tracks at grade, as stated in said application, is based upon the plaintiff's alleged intention to equip and operate its said road and tracks electrically, and to discard the use of animal power in propelling its cars. And the defendant says that such change in the method of operating the plaintiff's road, and in propelling its cars, necessarily results in imposing larger duties and greater expense upon the defendant, and creates liability to accidents resulting in loss of life and property; and such use of electricity in propelling the plaintiff's cars operates to impose a different and greater servitude upon the defendant's property and in respect to the use of its said property and tracks, than if the plaintiff's cars were drawn or propelled by animal power; that the electric cars and motors are heavier, and the machinery and apparatus is liable to accident, so that at times the cars and rolling stock of the plaintiff will be left upon the lines of track of the defendant's railroad creating an obstacle and obstruction to the use by the defendant of its said road, tracks, and property, and that such use by electricity will obstruct and destroy the proper use by the defendant of its said tracks and property.

And now this defendant says that nothing has been paid, offered, or tendered in respect to such taking of the defendant's property, or to such loss and damage to the defendant because of such contemplated action on the part of the plaintiff.

Wherefore the defendant says that the plaintiff has no authority to construct and operate its line of track and railroad as prayed for in said application.

DEFENDANTS,

By HENRY STODDARD,

*Attorney.*

To which second defense the plaintiff filed its demurrer as follows, viz.:

APPLICATION OF THE FAIR HAVEN & WESTVILLE RAILROAD COMPANY.	} BEFORE THE HONORABLE GEO. M. WOODRUFF, WILLIAM O. SEYMOUR, AND ALEXANDER C. ROBERTSON, Railroad Commissioners, New Haven, October 16, 1893.
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### DEMURRER.

The Fair Haven & Westville Railroad Company, for the sake of expedition, demurs to the so-called second defense filed in behalf of the New York, New Haven & Hartford Railroad Company, because it tends to raise issues collateral to the one before the Commissioners, and outside of their jurisdiction; the applicant deeming the only issue to be the propriety of granting its prayer, with due regard to public safety and convenience.

THE FAIR HAVEN & WESTVILLE RAILROAD COMPANY,  
By WATROUS & BUCKLAND,  
*Its Attorneys.*

And said parties were at issue upon said first defense, and were fully heard at sundry times upon said petition, defenses, and demurrer, and at the hearing on the 10th of November instant, said New York, New Haven & Hartford Railroad Company asked this Board to hold, rule, and decide upon said application as per the following requests in writing filed with us, at our request, on the 14th instant, viz.:

The application of the Fair Haven & Westville Railroad Company, dated the 26th day of August, 1893, to cross the tracks of the New York, New Haven & Hartford Railroad Company, at grade at Bridge Street in the City of New Haven, now pending before the Honorable Board of Railroad Commissioners.

The said New York, New Haven & Hartford Railroad Company, defendant in the above entitled application, respectfully asks this Honorable Board of Railroad Commissioners to hold, rule, and decide upon said application as follows:—

1. That the said Fair Haven & Westville Railroad Company has no right to build or operate an additional track at grade across the tracks of the New York, New Haven & Hartford Railroad Company at said Bridge Street, except with the approval of this Board of Railroad Commissioners to such grade crossing.

2. That said Fair Haven & Westville Railroad Company has no right to operate any track at grade across the tracks of the said New York, New Haven & Hartford Railroad Company by electricity, except by and upon the approval of this Board.



3. That the law of 1893, being Chapter 208, applies to, and governs this application of the Fair Haven & Westville Railroad Company.

4. Before this Board of Railroad Commissioners will approve the location, construction, or operation of an additional track at grade, where such grade crossing is dangerous to the public, this Board must find and rule that a substantial and practical necessity exists for such additional grade crossing; and if this Board find that the question of an additional crossing is a mere matter of convenience, or a question of moderate expense, then, under the law, this Board of Railroad Commissioners ought not and will not approve such additional location, construction or operation of a grade crossing.

5. That the grade crossing in question at Bridge Street is very dangerous and perilous to the public, and that no substantial and practical necessity exists for an additional crossing at grade.

6. That the evidence shows that there is no present existing occasion or necessity for such additional crossing at grade, and therefore no approval will be made at present; and such approval of such grade crossing will not be made until the occasion and necessity is actually and presently existing, and no contingent, possible, and future need of an additional grade crossing is sufficient to induce a present approval of such additional grade crossing.

7. That if the evidence leave it uncertain whether the single track now operated by the Fair Haven & Westville Road, as it has a right to operate it by law, will reasonably suffice for the needs of that road and the public, then no approval is to be given to the additional grade crossing; nor will such approval be given until actual use and experience shall demonstrate the need of an additional crossing.

8. That greater danger to the public exists from the use of double tracks, with cars running in both directions at the same time than from the use of a single track.

9. That this Board will not, and has no power to approve such additional grade crossing as is applied for, unless it appears, and is decided by the Board that the applicant has a legal right (except so far as such legal right depends upon the approval of this Board) to build such additional track at grade.

And in ruling and determining as to the existence of such legal right to cross, to rule and decide that this Board will consider and determine the following questions: —

A. Whether the plan and application lodged with and made to the municipal authorities have the legal and statutory requisites.

B. Whether there has been any such public hearing upon such application and plan as is prescribed by law.

C. That this Board will consider the facts alleged in the special answer of the New York, New Haven & Hartford Railroad Company, which has been demurred to.

D. That this Board will consider all the facts proved, including the following:—

That the New York, New Haven & Hartford Railroad Company have the title to the land in question, and have devoted their land exclusively to railroad purposes. That the duty and obligation of said New York, New Haven & Hartford Railroad Company, as a common carrier, require it to have the exclusive use of said crossing; and that an additional track will damage, hinder, and delay the said New York, New Haven & Hartford Railroad Company, and no compensation has been made or provided for such damage.

And upon finding any one of the above A, B, C, and D propositions adverse to the Fair Haven & Westville Railroad Company, will thereupon decline to give their approval to such additional grade crossing.

And to rule and decide that it affirmatively appears from the evidence that no such plan and application, with the statutory requisites, has been made to the Mayor and Common Council of the city of New Haven, showing the motive power to be used in propelling the cars, and the method and manner of applying the same, and no such plan has been approved by the said Mayor and Court of Common Council after a public hearing before said authorities.

And to decide that the plan submitted to the said Mayor and Court of Common Council was never properly heard by the said Mayor and Court of Common Council, and that said Mayor and Court of Common Council had no hearing upon said plan, nor of the persons interested therein.

10. That this Board of Railroad Commissioners has no jurisdiction or authority to do other than to approve or disapprove the plan presented to, and approved and accepted by the local authorities; it has no power, authority, or jurisdiction to modify or change said plan in any particular, nor to attach or enforce any condition whatever to said plan or the operation of the railroad under said plan, the entire jurisdiction of this Board being to act upon such legal plan as may be presented to them, and if their judgment affirmatively approves such plan, then to grant the certificate of approval, otherwise to refuse it.

November 14, 1893.

Respectfully submitted,

HENRY STODDARD,

*Attorney.*

To the New York, New Haven & Hartford Railroad Company.

And now after such hearings, and upon consideration, we hold, decide, and rule upon the said several requests as follows:—

As to No. 1 we hold that said Fair Haven & Westville Railroad Company having brought its petition pursuant to the provisions of Chapter 208 of the Public Acts of 1893, thereby admits that it has no right to construct its second track at grade across the tracks of the New York, New Haven & Hartford Railroad Company at said Bridge Street except upon our approval; hence there is no occasion for us to make any ruling upon that question.

As to No. 2. We hold that the approval of this Board is not required for the substitution of electricity for horses as a motive power upon said Fair Haven & Westville Railroad at said crossing.

As to No. 3. We decline to make any ruling so far as it involves the question raised under No. 1, for the reasons above given, but we are of opinion that said Act of 1893 applies to and governs this application; provided the construction of a second track is equivalent to the construction of a railroad within the meaning of said act, upon which, for reasons given, we see no occasion to express any opinion.

As to No. 4. We are of opinion that it is not necessary for this Board, before approving of the construction of an electric, cable, or horse railroad across the tracks of a steam railroad, to find in fact that a substantial and practical necessity exists therefor, but that the giving of such approval is a matter of discretion with the Board, dependent upon all the circumstances of each particular case, including the danger involved and the nature of the demand.

As to Nos. 5, 6, 7, and 8. All these contain claims proper to be considered by the Commissioners in coming to their final decision, but a preliminary finding thereon might be a determination of the main question, and should, therefore, not be given.

As to C and D, under No. 9. The Commissioners will, of course, consider all the facts proven whether alleged in the special answer of the New York, New Haven & Hartford Railroad Company or otherwise introduced.

As to A and B, under No. 9 and No. 9 itself. We are of opinion that it is not within the province of this Board to pass upon the matters therein suggested. All that is necessary to give the petitioner standing before us is to show *prima facie* that it has been legally incorporated and authorized to lay a second track through Bridge Street. It seems to us to be immaterial, so far as this proceeding is concerned, whether the right to lay the second track is subject to certain conditions or not. The application to us might have been made and our approval given before any of the



conditions had been complied with. Our approval if given applies solely to the crossing of the steam railroad tracks and in no other way affects the street railroad company. We can neither give to it or take away the right to construct the railroad through the street, or to lay there an additional track, nor does our approval of its request to be allowed to construct its track at grade across the steam railroad confer any right to lay an additional track, but merely determines the mode of construction, if built. Hence, it seems to us that it would be assuming a power not conferred upon us were we to attempt to pass upon the questions suggested.

As to No. 10. We hold, as requested, that we have no jurisdiction or authority in this matter except to approve or decline to approve of the construction of the second track at grade as in said petition prayed for, without any imposing of conditions, restrictions, or regulations whatever.

In our opinion, also, the demurrer of the petitioner should be sustained. We come then to the main question whether the crossing shall be allowed at grade, and in the determination of this question the effect which it will have upon the business of both parties, and the necessities and convenience of the public are to be considered; but the controlling question, as it seems to us, is that of safety.

It is not a question whether a grade crossing of a steam railroad by a street railroad shall be permitted, but, whether (such crossing already existing), it will be less dangerous with two tracks than with one, with the necessary congestion of travel incident thereto. It is admitted by all that the traffic on the street railroad can be handled much more expeditiously with two tracks than with one, and it seems to us that necessarily, therefore, there will be less interference with traffic on the steam railroad, and that whatever tends to keep the crossing free from interruption is in the interest of safety.

We are therefore of the opinion that public safety, convenience, and necessity, and the business of both companies will be best secured and served by the construction of a second track by said Fair Haven & Westville Railroad Company across the tracks of the New York, New Haven & Hartford Railroad Company at said Bridge Street, and we do hereby give our approval thereof.

GEO. M. WOODRUFF,	}	<i>Railroad Commissioners.</i>
WM. O. SEYMOUR,		

## STATE OF CONNECTICUT.

## OFFICE OF THE RAILROAD COMMISSIONERS.

HARTFORD, Nov. 17, 1893.

In the matter of accommodations at the Hartford Station of the New York, New Haven & Hartford and New York & New England Railroad Companies,

The following petitions have been presented to us, viz. :

“EAST HARTFORD, Oct. 7, 1893.

“*To the Railroad Commissioners :*

“GENTLEMEN — On the 18th of last August I was a passenger on a train of the New York, New Haven & Hartford Railroad Company, going north, and due at Hartford at five minutes past twelve. The train was a few minutes late, but it reached Hartford in time for me to take a train of the New York & New England Railroad Company, which left Hartford at ten minutes past twelve. This train stood alongside of the train in which I came to Hartford, but as a fence has been erected between the two roads, it was necessary for me to go down stairs and pass under both trains and ascend another flight of stairs before I could reach it. I went down stairs into the passenger room of the New York, New Haven & Hartford Railroad Company, and to the door in that room through which passengers for the New England road have for several years been accustomed to pass. I found the door locked, and was told by the officer in charge that in order to reach my train I must go to Asylum Street and through that street to Spruce Street. Before I could make the round the train on the New England started, and I found myself left behind. This was particularly annoying as I had arranged to have a carriage meet me at East Hartford on the arrival of that train to carry me to my daughter's, who lives more than a mile from the railroad station in this town. I consequently walked the whole distance ; and it was a genuine August day, and I was nearly overcome by the heat. I have since been informed that mine is not an exceptional case, but that numerous other passengers have in like manner been detained and annoyed by the action of the New York, New Haven & Hartford Railroad Company in locking the door of the Hartford depot which leads to the New England railroad. I see by the *Hartford Courant* of last Friday that you have expressed your willingness to give a public hearing to see what can be done to relieve passengers at the Hartford Depot, provided the people of Hartford and its vicinity will petition for such a hearing. I do not know the names of many passengers who have been subjected to inconvenience at that depot, but I know one or two who would be willing to join with me in petition for such a hearing, which I, for myself, now make. I doubt

not, however, that if you will appoint a hearing on this my petition the fact can be established to your full satisfaction that the doors of the Hartford Depot are kept locked so that passengers on the New York, New Haven & Hartford Railroad cannot pass to the New England Railroad without going to Spruce Street.

"Yours respectfully,

"MRS. GEORGE FORBES."

*"To the Honorable Board of Railroad Commissioners of the State of Connecticut :*

"The petition of the Mayor and the Court of Common Council of the city of Hartford, a municipal corporation organized and existing under the laws of the State of Connecticut, having local limits within the County of Hartford, in said State, respectfully represents :

"1. That the arrangements made by the New York, New Haven & Hartford and the New York & New England Railroad Companies relative to their respective uses of the Union Station in said city, have been such that, during the last several months, the traveling public has been put to great inconvenience, annoyance, and vexation, and especially that part of said traveling public who desire to change from the cars of one road to the cars of the other.

"2. Your petitioners respectfully pray that a public hearing may be had upon the matters herein set forth, and that your honorable Board will grant such relief as will effectually remove said inconvenience and annoyance to the traveling public.

"Dated at Hartford, this 14th day of October, 1893.

THE CITY OF HARTFORD, by its Attorney,

"T. E. STEELE,

"WM. WALDO HYDE, *Mayor.*"

*"To the Honorable Board of Railroad Commissioners of the State of Connecticut :*

"We the undersigned, being a majority of the Selectmen of the town of Hartford in said State, respectfully represent

"That whereas, the arrangements made by the New York, New Haven & Hartford and the New York & New England Railroad Companies, relative to their respective uses of the Union Station in said town, have been such that, during the last several months, the traveling public has been put to great inconvenience, annoyance, and vexation, and especially that part of said traveling public who desire to change from the cars of one road to the cars of the other ;

"Therefore, your petitioners respectfully pray that a public hearing may be had upon the matters herein set forth, and that your Honorable



Board will grant such relief as will effectually remove said inconvenience and annoyance to the traveling public.

"Dated at Hartford, this twentieth day of October, A. D. 1893.

"G. W. FOWLER,  
"GEORGE ULRICH,  
"E. J. SMITH,  
"THOS. J. BLAKE,  
"R. A. GRIFFING."

A hearing thereon was appointed by us for the 2d day of November instant, and notice thereof given to the several petitioners and to the railroad companies; and all said parties appeared and were fully heard, together with such other parties as so desired; and the following answer in writing was also made and filed by said New York, New Haven & Hartford Railroad Company, viz.:

"*In re* petition of the city of Hartford and Selectmen of the town of Hartford returnable to the Railroad Commissioners November 2, 1893.

"Answer of the respondent, the New York, New Haven & Hartford Railroad Company.

"The New York, New Haven & Hartford Railroad Company, cited to appear before the Honorable Board of Railroad Commissioners upon a petition made by the city of Hartford, hereby respectfully submits to the Commissioners:

"1. That the petition sets out no cause of complaint to the Board provided for by the Statutes, and that the petition should, therefore, be dismissed for want of jurisdiction.

"2. That the petition is based solely upon alleged arrangements made by the New York, New Haven & Hartford and the New York & New England Railroad Companies, relative to their respective uses of the Union Station in said city, while in fact your respondents have no arrangements at all, either good or bad, with the New York & New England Railroad Company as to the respective uses of any station in Hartford, and while in fact there is no Union Station in Hartford at all in which your respondent has any use or right, or where they could if they wished so to do, make bad arrangements with the New York & New England Railroad Company; and therefore the petition should be dismissed.

"3. The respondents, however, submit to your Honorable Board that in conducting their own station in fact, your respondents afford every facility in their power to accommodate any and all travelers who wish to pass from its trains to the trains of the New York & New England Railroad Company, or from the trains of the New York & New England Railroad Company to the trains of your respondent. That as

the New York & New England have abandoned the use of your respondent's station which they formerly had, and have erected their own station upon Spruce Street, neither wisdom, justice, nor fairness would or could require your respondents to furnish waiting-rooms for the patrons of said New York & New England Railroad Company.

"HARTFORD, Nov. 2, 1893.

"NEW YORK, NEW HAVEN & HARTFORD RAILROAD  
COMPANY.

"By ROBINSON & ROBINSON,

*"Their Attorneys."*

And now after such hearing and an examination of the premises we do, on consideration, make the following finding of facts and recommendations, viz. :

The foregoing petitions are the outcome of a condition of things which may be summarized as follows :

The passenger station of the New York, New Haven & Hartford Railroad Company at Hartford was built by it as a necessary consequence of the elimination of the Asylum Street grade crossing. It was completed and opened for use on the fifth day of May, 1889. It was so constructed as to be adapted to the use of that company and of the New York & New England Railroad Company as a Union Depot, and was so used from its opening till May 31, last, when the latter company having provided such depot accommodations as it thought suitable for its own use, discontinued the use of the accommodations furnished by the former company, and the depot ceased to be a Union one. The tracks of both roads are at the level of the second story of the depot building; the east-bound trains on the New York, New Haven & Hartford and the west-bound trains on the New York & New England having their respective platforms, while the west-bound trains of the New York, New Haven & Hartford and the east-bound trains of the New York & New England are accommodated by a common platform midway between the tracks of each road, the double tracks of each company being separated by a picket fence. From the waiting-room of the New York, New Haven & Hartford Railroad three covered ways pass under the tracks, viz., a broad central one extending to the grounds of the New York & New England, with stairs ascending midway to the common platform of both companies; another on the south passing under the tracks of the New York, New Haven & Hartford and connecting with the stairs to the common platform, and a third on the north of the central one, passing under the tracks of both companies, connecting with the stairs to the common platform and extending to the stairs ascending to the platform for west-bound trains on the New York & New England Railroad. Convenient

stairways also connect the platforms for trains on the New England Road with the streets on the north, west, and south of the station ; but of these there is no occasion now to speak further.

So long as the waiting-room of the New York, New Haven & Hartford Company was used in common, the passways and connecting stairs were open to the unrestricted use of the patrons of both roads, and to the general public, but after the New York & New England provided its own depot accommodations, the New York, New Haven & Hartford Company, finding that its waiting-room continued to be more or less used daily by some six hundred patrons of the New England, closed the doors to the several passways, and the same have so continued with more or less strictness ever since. The intention and general practice being to open them as required for the convenience of the patrons of the New York, New Haven & Hartford road only. This action has necessarily resulted in some annoyance and inconvenience to those patrons and to the very great annoyance and inconvenience of others. As a relief we are asked, not only to require the condition existing when the depot was used in common to be restored, but that we further order the dividing fences on both roads removed ; additional stairways built so as to give communication between the several platforms, and the posting of notices for the guidance of travelers. So far as the fences are concerned we see no occasion to change our views as heretofore expressed in our finding in regard to this depot, on the 13th day of December, 1889, and we therefore decline to make any recommendations or order for their removal. Neither should we regard it just, had we the power, to require one company to provide depot accommodations for another without compensation. But it seems to us that there may be circumstances under which it would not be unreasonable to require a railroad company to provide certain accommodations for its own patrons and the general traveling public, even if those accommodations were certain to be used to some extent by others not entitled to use them.\* In this case, the New York, New Haven & Hartford Railroad Company so constructed its station that its reasonable and convenient use by its own patrons renders it liable to a limited use by others having no strictly legal claim to its privileges, a condition of things which must have been foreseen by the company and ought not to be submitted to by it. This has in part been recognized by the company, as the stairs to the common or middle platform from the central passway have been allowed to remain and be used as formerly, although the property lines of the two companies passes through the middle of the stairway. We see no objection to the closing of the north or east passway by gates at the stairs, and by locking the door of the waiting-room ; in like manner the south or west passway may be closed except on special occa-



sions, but the use of the central passway should either be wholly unrestricted, or, if the New York, New Haven & Hartford Company prefer, the passway should be left unobstructed and the connecting door of the waiting-room so arranged as to open freely from the track side, a man being stationed on the waiting-room side to pass only those having tickets for the New York, New Haven & Hartford Railroad, and those who, having come in on that road, desire to go out over the New England. We think, also, that it would be but a reasonable exercise of courtesy, if a man is to be so stationed, to also permit invalids and women who by mistake, or even by design, have entered the waiting-room desiring to pass to trains of the New England, to enjoy that privilege without compelling them to go out into the street and half way around the station. It would also be a convenience if stairways were constructed connecting the central passway with the platform next the building so that persons could pass to and from any of the platforms without entering the depot building, and suitable notices placed at the head of all stairways, explaining their use ; but if these new stairways are not constructed, then there should be signs in large letters above each stairway from the midway platform to the central passway, one over the north or east stairway, giving notice that the way to east-bound trains on the New York, New Haven & Hartford Railroad is to the left through the waiting-room, and to the west-bound trains on the New York & New England to the right ; and a like notice, with proper changes, over the south or west stairway. We therefore recommend to said New York, New Haven & Hartford Railroad Company that it forthwith cause the above suggestions to be carried out, and in all reasonable ways make the use of the station as convenient as it is safe.

GEORGE M. WOODRUFF, } *Railroad*  
WM. O. SEYMOUR, } *Commissioners.*

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THE STATE EX REL. THE NEW YORK & NEW ENGLAND RAILROAD  
COMPANY *vs.* THE ASYLUM STREET BRIDGE COMMISSION.

(New Haven and Fairfield Cos., Jan. T., 1893. ANDREWS, C. J., CARPENTER,  
TORRANCE, FENN, and F. B. HALL, Js.)

Application for a writ of mandamus, brought to the Superior Court in New Haven County. The defendant moved that the application be quashed, which motion the Court (*Thayer, J.*) granted, and dismissed the application. Appeal by the plaintiff. In this Court the defendant moved to strike the appeal from the docket on the ground that it would

not lie from such a judgment. Motion heard and overruled, and the case argued on its merits. The case is fully stated in the opinion.

*T. E. Doolittle* and *W. L. Bennett*, for the appellant.

*H. C. Robinson* and *W. F. Henney*, for the appellee.

FENN, J. The application to the Superior Court, for an alternative mandamus against the defendant, states that subsequent to the decision of this Court in *Woodruff vs. New York & New England R. R. Co.*, 59 Conn., 63, and pending further litigation both in the Federal and State Courts, there was a conference between the representatives of the defendant, of the relator, whom we will call the plaintiff, and of the city of Hartford, which resulted in a compromise and arrangement of settlement, pursuant to which the surface tracks of the plaintiff's railroad, between the north line of Church Street and Asylum Street in Hartford were taken up, and the plaintiff presented to the defendant commission a claim for damages for such removal, and for sundry other matters of damage to the plaintiff, incident to the general elevation of its tracks over Asylum Street, and the changes necessarily consequent thereon; that the commission heard the plaintiff, allowed certain claims, and disallowed others as not arising in consequence of any order of the commission, concerning which disallowance no complaint is now made; and also, in reference to certain other items, disallowed them on the ground, as stated by the commission, "that the damages, if any, are not special to the New York & New England Railroad Company, to be taken account of as a part of the entire expense of the improvement, but such as are incidental to the carrying out of the design and instructions of the legislative acts creating and regulating this board, and for public safety, convenience, and necessity." These items were as follows:

"Land of the company taken for retaining wall, running north from Church Street about 890 feet, and amounting to about 6,900 square feet, . . . . .	\$15,600.00
"Destruction of old station building on Spruce Street, and loss of rentals received and receivable therefrom, . . . . .	45,000.00
"Cost of re-surfacing temporary tracks on each side of Asylum Street, . . . . .	1,224.71
"Amount paid to administrator of John Connelly, who lost his life while employed by the company on work ordered by the commission, . . . . .	150.00
"Cost of extra switching freight and passenger trains, due to the interruption of the tracks in consequence of the work ordered by the commission, . . . . .	6,792.40
"Salary of additional telegraph operators from June 1, 1887, to June 30, 1889, . . . . .	1,250.00
"Cost of fitting up temporary office, made necessary by destruction of old station, \$320.28; and rent of temporary office from October 1, 1887, to June 30, 1889, \$749.97, . . . . .	1,070.25

' Cost of temporary station for use until elevated structure was completed, . . . . .	\$4,143.71
" Additional cost of transporting baggage between the temporary stations of the two roads on each side of elevated structure, . .	1,305.00
" Difference between the value of the land between Church and Asylum streets, for the purpose it can now be used for, and its value for railroad purposes, as it could have been used prior to the removal of the tracks on Church Street, . . . . .	200,000.00
" Impairment of value of yard north of Church Street, consequent on changes incident to the work ordered by the commission, and to the removal of the tracks across Church Street, . . . . .	100,000.00
" Damage from interruption of use of territory between Asylum Street and Walnut Street from April, 1887, to the present time, . .	10,000.00"

The application alleged that all of these disallowed items were for damages to the plaintiff, which the commission had power, under the legislative acts, to take account of as a part of the entire expense of the improvement, and that the commission ought to have inquired into the facts concerning such items, and, if maintained by proper proof, to have allowed them, but that they were disallowed on motion of counsel for the city of Hartford, without hearing evidence as to their merits, and for the reason before stated ; and the application concludes with a motion that an alternative writ of mandamus issue, requiring the commission to inquire into the merits of these claims, and if any such damages shall be found to be proved and justly due, to order their allowance and payment as a part of the entire expense of the Asylum Street bridge improvement. The Superior Court having granted a rule to show cause, the defendant filed a motion to quash, presenting various legal issues, which it is not necessary to recite. The Court found these issues for the defendant, and that the application was insufficient, and thereupon granted the motion and denied the application ; and the plaintiff appealed to this Court, which heard and refused the defendant's motion to erase the case from the docket, and afterwards the parties were fully heard upon all the grounds presented by the plaintiff's reasons of appeal. These reasons need not be enumerated, since they may be fairly held to present and cover all phases of the broad general question — Ought the writ to issue ? And was the judgment of the Superior Court denying it erroneous ?

The first subordinate inquiry under this general one is whether the action of the commission is subject to direction by mandamus. Manifestly a negative answer will dispose of the case. What, then, are the powers which the legislature have conferred upon the commission ? The answer may be found in the language of the acts which created it, quoted at length in 59 Conn. R., pp. 66, 7, 8. It is expressly declared in section four of the amended act of 1885, as there printed, that the



commission shall possess all of the powers of the General Assembly, "and may direct by whom, when, and how the work shall be performed, and who shall pay for the same, and what proportion of the entire expense, including land damages, each party shall pay and bear; and they may, in the event of any disagreement between the parties, determine the cost of the whole or any portion of the work, and make any and all orders as to the manner and amount of payment which they may judge reasonable; provided, however, that in no event shall said city of Hartford be required to pay any portion of the cost of any changes in the present depot, and not exceeding one-half of all the other expenses, including land damages, incurred under this resolution." It would seem as if, subject only to the limitation upon the assessment against the city of Hartford, no grant of power could be more plenary or conferred in more explicit and unqualified terms, and that the duties to be performed by the commission were such as in the highest degree to call for the exercise of judgment and discretion. And that a writ of mandamus will never issue "in a case where the effect of it is to direct or control an executive officer in the discharge of an executive duty involving the exercise of discretion and judgment," has been so often decided by this Court, and is so fundamental, that, to borrow the language of Judge Loomis in *Batters vs. Dunning*, 49 Conn., 480, it "is too obvious to require the citation of any authorities." It is only fair to the plaintiff to say that it does not assume to claim that the commission, in the use of its discretion, in the exercise of the powers conferred, and the discharge of the duties imposed upon it by the legislature is subject to judicial interference by mandamus. The contention is that it is by the legislative authority made the duty of the commission to find, and then to apportion between the two railroad corporations and the city of Hartford, the entire expense, loss, and damages to all caused by or resulting from the execution of the orders made by such commission; that while, as to the amount of such damage, and as to its relative apportionment, subject, of course, to the limitations relating to the city of Hartford, the judgment of the commission is exclusive and final, the duty to find and to apportion the entire amount is direct, positive, and perfect; and that such duty is, therefore, not the exercise of a discretionary power by the commission, since in regard to it it has none, but is to it a matter of plain duty, and to the plaintiff of absolute right; and that hence, if the commission fail to discharge such duty, the Court will lend its aid by mandamus to the plaintiff to compel such performance and to enforce such right. And the plaintiff claims further, if it shall be held that it is within the discretion of the commission to determine whether the rejected items of claimed damage to the plaintiff ought or not to be con-

sidered and apportioned as a part of the entire expense, that it is manifest, from the recorded and recited action of the commission, that it utterly failed to exercise that discretion and refused to consider such items, solely because of an erroneous idea that it was not within its jurisdiction to do so, and that such an error can be corrected, and can only be corrected and remedied, by mandamus, which will declare the true extent of the jurisdiction of the commission, and direct its full exercise, namely, that the commission "inquire into the merits of the damage claims presented, and if any such damage shall be proved and found to be justly due, to order its allowance and payment as part of the entire expense of the Asylum Street bridge improvement." Now, while the general principles relating to mandamus, upon which the plaintiff relies in this contention — that is to say, that where it appears or can be proved that there is a fixed, definite, precise act, which it is the absolute duty of a public officer to do, in a particular way and at a particular time which has arrived, and the clear legal right of a party to have so done — a right concerning a substantial matter, and there is no other legal remedy, the performance of such act, of such duty, the enforcement of such right can be secured by mandamus; and also that the exercise of existing discretion by the officer vested with it may itself be an act of such fixed, definite, and precise nature, and so the absolute duty of the officer and right of a party, that such officer may be compelled by mandamus in case of refusal, no matter what the ground of such refusal may be, to exercise such discretion to hear and determine, although as to such determination, beyond the simple direction to make it, he must be left free. While these doctrines seem well settled, and have been affirmed by this Court in repeated decisions, in order to warrant the plaintiff in the application which it would make of such doctrines, and the result which it claims, it would be necessary, in reference to the first part of its contention, namely, that it was mandatory upon the commission to take these items into their consideration, to construe the language of the legislature, which we have quoted, very differently from the natural and ordinary import of the language used. That language apparently had strict reference to work to be ordered and directed done by the commission, concerning which it was declared that the commission might "direct by whom, when, and how the work shall be performed, and who shall pay for the same, and what proportion of the entire expense, including land damages, each party shall pay and bear; and they may, in the event of any disagreement between the parties, determine the cost of the whole or any portion of the work." So clearly is this language, both by its context and by its terms, confined and limited to "expense" and "cost" of "work," that it was deemed

necessary to expressly say "including land damages," lest otherwise even the cost and expense of land, which the preceding section authorized the railroad companies and the city of Hartford to take, might be regarded as not included. We may add that the proviso as to the city of Hartford, which follows the language just quoted, that the city should not be "required to pay any portion of the cost of any changes in the present depot or of the construction of any new depot," adds confirmation to this intent. It would seem idle to protect the city from any items of cost actually incurred in any changes, if at the same time it was left open to liability for what might be found infinitely greater sums for speculative, consequential, and incidental damages, and loss resulting from such changes or improvements. But in order to support the plaintiff's claim it must be held that notwithstanding this language of the legislative acts, or rather, as we shall presently show, by virtue of such language, it was, it thereby became, the duty of the commission; in the words of the plaintiff's brief, "to estimate the entire expense of the improvement in accordance with the ordinary rules of law. It is the duty of the commission to ascertain the entire expense. If the items of expense which we present are such as in a court of law should be considered in estimating the entire expense, the commission, in refusing to consider them, has simply refused to do that which the law expressly directs it to do. It was not an act which they could do or refuse to do at discretion." It seems to us that the plaintiff reaches this conclusion only by a confusion of terms and things. There is in this case no occasion to inquire what items of damage to the owner are or may be considered when private property is taken for public use through the exercise of the right of eminent domain. No such property, no property of the plaintiff, was so taken. The plaintiff admits in its brief that it was held by this Court, in the two cases in which these acts were considered (*Woodruff vs. Catlin*, 54 Conn., 277, and *Woodruff vs. New York & New England R. R. Co.*, 59 Conn., 63), that the power exercised by the State, through the commission, was the police power in abating a nuisance; that it was not contemplated that the public should pay anything by way of compensation or damages to the three corporations, or any part of the expense of the improvement; that such improvement was a duty of such corporations, and its expense a debt that they must pay. "The debt to be paid to the public is due from three, and the question arises as between them what each has to pay or bear." There is certainly no rule of common law, flexible or inflexible, by which this question can be decided. The only right of either of these *tort feorsors* to contribution from the others, or to apportionment of damage, incident to the carrying out of the plan, must be derived from the language used by the



legislature. *New York & New England R. R. Co.'s Appeal from Commissioners*, 58 Conn., 532; *Woodruff vs. Catlin*, *supra*. The plaintiff, however, claims to be substantially supported in this contention by the language used by this Court in *Woodruff vs. New York & New England R. R. Co.*, *supra*, p. 93, where, in referring to the expense to which the company alleged it would be subjected in carrying out the order of the commission concerning the removal of surface tracks, it was said: "That is an argument to be addressed to the commission. So far as we have been able to examine, we find no reason why the commission might not take any special damage to the defendant, or to the city of Hartford, or to the New York, New Haven & Hartford Railroad Company into account, as part of the entire expense, and determine what proportion each should bear, subject only to the limitations fixed in the resolutions." It is unnecessary to determine what we might consider "special damage," or whether, upon further examination than we felt called upon to make in the former case, or as seems called for in this, we might or might not find reason why the commission might not take any item of the plaintiff's bill for such alleged damage into its consideration and apportionment as a part of the entire expense, for it is evident that the language used by this Court carries with it no intimation of an opinion concerning the duty of the commission in the matter. It is rather declaratory in another way of what had been previously stated in the opinion, and in a quotation there made from the earlier opinion in *Woodruff vs. Catlin*, *supra*, that the power and discretion of the commission in the premises was as unlimited as that of the legislature itself. Assuming then, as we may, that the commission possessed the power to consider each and every item of the plaintiff's claim, the question of how far it was reasonable to go in the exercise of that power is one which the legislature intended, and wisely, to leave to the sound judgment and discretion of its chosen instrumentality and arm, whose orders it was directed should be, "obligatory upon all parties," and from which no appeal was allowed, and of which no revision was contemplated. Indeed, what items of claimed damage are "special," so as to be considered in any legitimate sense as entering into the "expense of an improvement?" And what are not so can rarely, if ever, in any case be a pure, unmixed question of law, but must generally be much more largely dependent upon particular conditions or facts. Thus, for illustration, one of the items of the plaintiff's bill reads thus: "Land of the company taken for retaining wall," the conceded facts in reference to such item being that no land was taken in any other way than that such as was previously occupied for railroad purposes in connection with surface tracks was now used for the foundation of the viaduct

which carried the elevated and substituted tracks of the plaintiff's railroad. It would seem manifest that the authority best fitted for the determination of such questions arising in relation to a given work, other things being equal, would be the one which knew, and whose duty it was to know, the most about them, and equally manifest that in this instance such authority is not the Superior Court, whose interposition is invoked. And when it is the unquestioned and fully conceded power of the commission to determine in what proportion each party shall pay and bear the expense of the change and improvement, it would seem to be within a reasonable exercise of that power, according to its true intent and spirit, that, treating them as a proper matter of expense, these items (not of actual outlay, or not so in the direct execution of the work, but of incidental loss — matters from their very nature incapable of precise, definite computation and ascertainment) should by the commission be apportioned between the parties by mutual offset, each bearing its own incidental loss as a due apportionment and adjustment of the entire burden; a way which, for aught we know, may be pre-eminently fair and equitable.

But, finally, as we have seen, it is contended that if the commission possessed such discretion they failed to exercise it, the recorded action showing, as is claimed, that it disallowed the plaintiff's claims because of the want, as it judged, of jurisdiction or power to entertain them. We do not so construe the language used, which was that these claims "be disallowed, on the ground that the damages, if any, are not special to the New York & New England Railroad Company, to be taken account of as a part of the entire expense of the improvement, but such as are incidental to the carrying out of the design and instructions of the legislative acts creating and regulating this board." Now, this language, while plainly showing the ground on which the claims were disallowed — that is to say, the rule which the commission adopted for its guidance in the allowance and disallowance of claims — does not in any wise indicate why such rule was adopted, whether because, as the plaintiff claims, the commission held such view as to the limits of its jurisdiction, or because it considered such a rule most fair and just to all parties. In the absence of such indication the latter reason is to be presumed. Such presumption has close analogy to one which this Court declared to exist in *State vs. Alford*, 31 Conn., 40, 46. In view of the language used by this Court in *Woodruff vs. New York & New England R. R. Co.*, *supra*, on which the plaintiff so much relied, the commission could hardly have doubted its power in this regard, while from that used by our lamented associate, Judge SEYMOUR, in the opinion of the Court in *New York & New England R. R. Co. vs. City of Waterbury*, 60

Conn., 9, it could hardly have questioned our views in reference to such elements of damage. In that case, after citing from the former decision of this Court in *City of Bridgeport vs. New York & New Haven R. R. Co.*, 36 Conn., 269, in which, referring to items of damage similar to at least some of those claimed by the plaintiff, it was said that "all such claims for damages, and all claims that were not direct and immediate burdens, have been uniformly holden too contingent and remote to be the basis of assessment for damages"; and after disposing of a claim, in substance repeated by the plaintiff in this case, that the rule must be the same as when land of a manufacturing company was taken for a highway, and that the law being so in such cases that if the factory building must be raised or lowered, shored up, or moved in consequence, the company must be paid enough to make good the expense so necessitated, therefore the same rule must be adopted in favor of the railroad company, and saying, "but the cases stand upon a very different footing; in one the damage is the direct, natural, unavoidable result of the taking; in the other the damage is in no way, directly or indirectly, naturally connected with the taking, but artificially and by means of a statute which has respect to the safety of the public, and not to the damage of the party whose property is taken or to the benefit of the party who takes it," the opinion of Judge SEYMOUR uses this most emphatic language: "We cannot hold that a duty which the State has most justly imposed upon the applicant, as its share towards the protection of life, should be turned into an element of damage, for which compensation must be made when circumstances arise which create the duty." These expressions, used in a case in which the present plaintiff was a party, and in reference to an actual expenditure or outlay by the company, will apply with added weight to a claim for reimbursement for damage purely incident to the fact that the use of its land for a grade crossing, a "public nuisance, dangerous to human life," was more profitable to the plaintiff, in the exercise of its franchise from the State in the way which suited it best, than its use for a safe, because elevated, crossing, with the consequent protection of life thereat, would be.

But it is urged by the plaintiff that if the acts relative to the Asylum Street Bridge Commission admit of such construction as to warrant the action taken by the commission, they are unconstitutional. No argument in support of such contention has, however, been advanced, or could be, as it seems to us, not already addressed to, met, and answered by this Court in previous and recent decisions concerning these acts and other legislation relating to grade crossings. *Woodruff vs. Catlin*, *supra*; *Woodruff vs. New York & New England R. R. Co.*, *supra*; *New York & New England R. R. Co. vs. City of Waterbury*, *supra*; *New York & New*



*England R. R. Co.'s Appeal, supra; Town of Westbrook's Appeal*, 57 Conn., 95. Respect for these, our own former decisions, prevents our further consideration of this claim.

The line of reasoning which we have adopted, and the conclusion to which we have thereby been brought, also make it unnecessary to examine other grounds upon which the same result might, perhaps, have been reached.

There is no error in the judgment appealed from.

In this opinion ANDREWS, C. J., TORRANCE, and F. B. HALL, *Js.*, concurred. CARPENTER, *J.*, dissented.

# HIGHWAY CROSSINGS IN CONNECTICUT.

TABLE SHOWING THE HIGHWAY CROSSINGS IN EACH  
RAILROAD

Towns.	No. of crossings.	Over the track.	Under the track.	At grade.	With gates.	With flagmen.	With signal bells.	Constructed since railroad was built.	For access to stations.	Trespass crossings.
Andover,.....	8	...	1	7	...	...	...	...	...	...
Ansonia,.....	2	...	...	2	1	...	...	...	...	...
Avon,.....	8	...	1	7	...	...	...	...	...	...
Barkhamsted,.....	5	...	...	5	...	...	...	...	...	...
Beacon Falls,.....	5	...	1	4	...	...	...	...	...	1
Berlin,.....	10	3	1	6	...	...	...	...	...	...
Bethel,.....	17	...	2	15	1	...	...	1	...	...
Bloomfield,.....	12	...	...	12	...	...	...	...	...	...
Bolton,.....	5	2	...	3	...	1	...	...	...	...
Branford,.....	11	4	4	3	...	...	...	2	...	...
Brookfield,.....	17	...	1	16	...	...	...	...	...	1
Bridgeport,.....	29	1	...	28	15	1	...	20	1	11
Bristol,.....	17	2	2	13	2	...	1	2	...	...
Burlington,.....	2	...	1	1	...	...	...	...	...	...
Canton,.....	16	2	...	14	...	...	2	...	...	...
Canaan,.....	18	...	1	17	...	...	...	1	1	1
Canterbury,.....	2	...	...	2	...	...	...	...	...	...
Chaplin,.....	1	...	1	...	...	...	...	...	...	...
Chatham,.....	7	1	2	4	...	...	...	...	...	...
Chester,.....	4	...	...	4	...	...	...	...	...	...
Cheshire,.....	11	...	...	11	...	...	...	...	...	...
Clinton,.....	7	1	...	6	...	...	...	...	...	...
Colchester,.....	6	...	1	5	...	...	...	...	...	...
Columbia,.....	2	...	...	2	...	...	...	...	...	...
Cornwall,.....	22	1	...	21	...	...	...	2	1	1
Coventry,.....	4	...	...	4	...	...	...	...	...	...
Cromwell,.....	12	1	2	9	...	...	...	...	...	1
Danbury,.....	18	1	1	16	3	2	1	...	2	3
Darien,.....	8	1	...	7	1	1	...	...	...	...
Derby,.....	11	1	...	10	3	1	...	...	...	7
Durham,.....	1	...	1	...	...	...	...	...	...	...
East Haven,.....	2	2	...	...	...	...	...	...	...	...
East Hartford,.....	9	...	1	8	...	...	...	...	...	...
East Lyme,.....	2	...	2	...	...	...	...	...	...	...
East Windsor,.....	10	...	...	10	...	...	...	...	...	...
Ellington,.....	4	...	...	4	...	...	...	...	...	...
Enfield,.....	14	...	2	12	...	...	...	1	...	3
Essex,.....	7	...	...	7	...	...	...	...	...	...
Fairfield,.....	12	4	8	...	...	...	...	...	...	...
Farmington,.....	12	...	1	11	...	...	...	...	...	...
Franklin,.....	4	...	...	4	...	...	...	...	...	...
Granby,.....	5	...	...	5	...	...	...	...	...	...
Greenwich,.....	13	1	7	5	...	...	...	1	...	...
Griswold,.....	5	...	...	5	...	...	1	...	...	1
Groton,.....	13	3	5	5	...	2	...	1	...	1
Guilford,.....	5	2	1	2	...	...	...	...	...	...
Haddam,.....	7	1	...	6	...	...	...	...	...	...
Hampton,.....	9	2	...	7	...	...	...	1	...	...
Hamden,.....	14	3	5	6	...	...	...	...	4	4
Hartford,.....	52	10	14	28	15	6	...	6	...	3
Hebron,.....	7	...	...	7	...	...	...	...	...	...
Huntington,.....	2	1	...	1	...	...	...	...	...	...
Totals carried over,....	506	50	69	387	41	14	5	38	9	38



## TOWN, AND ON EACH RAILROAD, AS REPORTED BY THE COMPANIES.

## HIGHWAY CROSSINGS AT GRADE ON EACH RAILROAD.

B. & N. Y. A. L. R. R.	D. & N. R. R.	H. & C. V. R. R.	H. & C. W. R. R.	Housatonic R. R.	M., W. & C. R. R.	Naugatuck R. R.	N. H. & D. R. R.	N. H. & N. R. R.	N. L. N. R. R.	N. Y. & N. E. R. R.	N. Y. N. H. & H. R. R.	N. Y., P. & B. R. R.	Nor. & Wor. R. R.	S., L. & N. R. R.	Shore Line R. R.	South Manches- ter R. R.	Total.
							2	7		7							7
																	2
																	7
			5														5
						4											4
																	6
	15										6						15
			12							3							12
																	3
																	3
				14						2					3		16
				9							19						28
										13							13
								1									1
								3									14
			11														17
			10	7						2							2
4																	4
		4															4
								11									11
															6		6
5																	5
1										1							2
				21													21
									1	3							4
		3			4												9
	4			1						11							16
						7	3				7						7
																	10
										8							8
										10							10
									1	3							4
										8	4						12
		7															7
								11									11
									4								4
								5									5
											5						5
													5				5
												5					5
		6													2		2
										7							6
								5									7
											1						6
		9	2							8	9						28
7																	7
				1													1
17	19	29	40	53	4	11	5	43	6	86	53	5	5	....	11	..	387

TABLE SHOWING THE HIGHWAY CROSSINGS IN EACH  
RAILROAD

TOWNS.	No. of crossings.	Over the track.	Under the track.	At grade.	With gates.	With flagmen.	With signal bells.	Constructed since rail-road was built.	For access to stations.	Trespass crossings.
Totals brought over, . . . .	506	50	69	387	41	14	5	38	9	38
Kent, . . . . .	12	1	1	12	1	1	1	1	1	2
Killingly, . . . . .	9	1	1	7	1	1	1	1	1	2
Lebanon, . . . . .	5	2	1	3	1	1	1	1	1	2
Ledyard, . . . . .	1	1	1	1	1	1	1	1	1	2
Litchfield, . . . . .	16	1	1	15	1	1	1	1	1	2
Lisbon, . . . . .	6	1	2	3	1	1	1	1	1	2
Lyme, . . . . .	6	2	2	2	1	1	1	1	1	2
Madison, . . . . .	7	3	3	1	1	1	1	1	1	2
Manchester, . . . . .	13	1	3	9	1	1	2	1	1	2
Mansfield, . . . . .	9	1	1	8	1	1	1	1	1	2
Meriden, . . . . .	20	4	1	15	8	1	5	1	1	2
Middlebury, . . . . .	3	1	1	2	1	1	1	1	1	2
Middlefield, . . . . .	8	1	1	6	1	1	1	1	1	2
Middletown, . . . . .	42	10	5	27	3	1	7	1	1	2
Milford, . . . . .	20	1	2	17	1	1	1	1	1	2
Montville, . . . . .	3	1	1	3	1	1	1	1	1	2
Monroe, . . . . .	10	1	4	6	1	1	1	1	1	2
Morris, . . . . .	3	1	1	3	1	1	1	1	1	2
Naugatuck, . . . . .	9	1	2	7	1	1	1	1	1	2
New Britain, . . . . .	23	2	1	20	6	4	1	1	1	2
New Canaan, . . . . .	4	1	1	3	1	1	1	1	1	2
Newington, . . . . .	6	1	1	5	2	1	1	1	1	2
New Haven, . . . . .	68	35	5	28	6	12	1	7	1	9
New Hartford, . . . . .	11	1	3	8	1	1	1	1	1	2
New London, . . . . .	15	2	5	8	6	1	1	1	1	2
New Milford, . . . . .	25	1	1	25	1	1	1	1	1	2
Newtown, . . . . .	45	2	2	41	1	1	1	1	1	2
Norfolk, . . . . .	8	3	2	3	1	1	1	1	1	2
North Canaan, . . . . .	5	1	1	5	1	1	1	1	1	2
North Haven, . . . . .	7	1	1	5	1	1	1	1	1	2
Norwalk, . . . . .	33	3	6	24	7	1	2	1	1	2
Norwich, . . . . .	14	7	1	6	1	1	1	1	1	2
Old Saybrook, . . . . .	14	2	1	12	1	1	1	1	1	2
Orange, . . . . .	26	3	11	12	1	1	1	1	1	2
Oxford, . . . . .	7	2	1	5	1	1	1	1	1	2
Pomfret, . . . . .	9	3	1	5	1	1	1	1	1	2
Portland, . . . . .	11	1	2	8	1	1	1	1	1	2
Plainfield, . . . . .	24	1	1	23	1	1	1	1	1	2
Plainville, . . . . .	6	1	1	5	1	1	1	1	1	2
Plymouth, . . . . .	7	2	1	5	1	1	1	1	1	2
Putnam, . . . . .	16	4	5	7	2	1	1	1	1	2
Redding, . . . . .	10	1	2	8	1	1	1	1	1	2
Ridgefield, . . . . .	10	1	1	10	1	1	1	1	1	2
Rocky Hill, . . . . .	3	1	1	3	1	1	1	1	1	2
Roxbury, . . . . .	5	1	1	5	1	1	1	1	1	2
Salisbury, . . . . .	12	1	2	9	1	1	3	1	1	2
Saybrook, . . . . .	3	1	1	3	1	1	1	1	1	2
Seymour, . . . . .	4	1	1	3	1	1	1	1	1	2
Total carried over, . . . . .	1,139	154	147	838	84	36	24	64	18	82

## TOWN, AND ON EACH RAILROAD, AS REPORTED BY THE COMPANIES.

## HIGHWAY CROSSINGS AT GRADE ON EACH RAILROAD.

B. & N. Y. A. L. R. R.	D. & N. R. R.	H. & C. V. R. R.	H. & C. W. R. R.	Housatonic R. R.	M. W. & C. R. R.	Naugatuck R. R.	N. H. & D. R. R.	N. H. & N. R. R.	N. L. N. R. R.	N. Y. & N. E. R. R.	N. Y. N. H. & H. R. R.	N. Y. P. & B. R. R.	Nor. & Worcester R. R.	S. L. & N. R. R.	Shore Line R. R.	South Manches- ter R. R.	Total.
17	19	29	40	53	4	11	5	43	6	86	53	5	5		11		387
				12									7				12
3																	7
													1				3
						8				2							1
														7			15
																	3
															3		2
															1		1
									8								9
					5												8
										2	10						15
6																	2
3		17			6						1						6
						3					14						27
									3								17
				6													3
																	6
						6				1							3
										12	8						7
											3						20
										2	3						3
								6			8						5
								4							14		28
			4														8
																	8
				25					2			6					25
	5			21						10							41
			3											5			3
				5													5
4																	5
	21										1						5
											3						24
																	6
		6							4								12
															6		12
							8				4						12
										5							5
										5							5
8																	5
										11			12				8
								2		3							23
										5							5
										3							5
													4				7
	8																8
10																	10
		3															3
														5			5
			9														9
		3															3
						3											3
41	63	58	56	122	15	31	13	55	23	154	108	11	31	20	34	3	838



TABLE SHOWING THE HIGHWAY CROSSINGS IN EACH  
RAILROAD

Towns.	No. of crossings.	Over the track.	Under the track.	At grade.	With gates.	With flagmen.	With signal bells.	Constructed since railroad was built.	For access to stations.	Trespass crossings.
Totals brought over,.....	1,139	154	147	838	84	36	24	64	18	82
Simsbury,.....	17	1	2	14	.....	.....	.....	.....	.....	.....
Southbury,.....	14	1	6	7	.....	.....	.....	1	.....	.....
Southington,.....	17	.....	.....	17	.....	.....	1	3	1	2
South Windsor,.....	10	.....	.....	10	.....	.....	.....	.....	.....	.....
Sprague,.....	4	.....	.....	4	.....	.....	1	.....	.....	.....
Stafford,.....	8	.....	.....	8	.....	.....	.....	.....	.....	2
Stamford,.....	14	3	.....	11	5	2	.....	2	.....	.....
Sterling,.....	5	.....	.....	5	.....	.....	.....	.....	.....	.....
Stonington,.....	14	2	1	11	7	.....	1	2	.....	2
Stratford,.....	10	1	2	7	1	.....	2	2	.....	.....
Suffield,.....	8	.....	2	6	.....	.....	.....	.....	.....	.....
Tolland,.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
Torrington,.....	10	.....	1	9	1	.....	.....	.....	.....	2
Thomaston,.....	3	.....	.....	3	1	.....	.....	.....	.....	1
Thompson,.....	25	2	3	20	.....	.....	.....	1	1	3
Trumbull,.....	6	.....	.....	6	.....	.....	.....	.....	.....	1
Vernon,.....	16	.....	4	12	.....	.....	.....	.....	.....	.....
Wallingford,.....	22	1	2	19	2	.....	.....	.....	.....	.....
Washington,.....	12	.....	.....	12	.....	.....	.....	2	.....	1
Waterbury,.....	20	1	4	15	3	.....	1	.....	.....	6
Waterford,.....	5	1	2	2	.....	.....	1	.....	.....	.....
Watertown,.....	5	.....	3	2	.....	.....	.....	.....	.....	.....
Westbrook,.....	4	3	1	.....	.....	.....	.....	.....	.....	.....
West Hartford,.....	4	.....	1	3	.....	.....	.....	.....	.....	1
Westport,.....	10	6	4	.....	.....	.....	.....	.....	.....	.....
Wethersfield,.....	8	.....	.....	8	1	.....	.....	.....	.....	.....
Windsor,.....	12	.....	.....	12	.....	2	2	.....	.....	.....
Windsor Locks,.....	3	.....	.....	3	.....	2	.....	.....	.....	.....
Windham,.....	22	2	2	18	2	3	.....	.....	1	4
Wilton,.....	16	1	.....	15	.....	.....	.....	.....	.....	1
Willington,.....	5	.....	.....	5	.....	.....	.....	1	.....	.....
Winchester,.....	16	1	4	11	.....	.....	2	.....	.....	.....
Totals,.....	1,485	180	191	1,114	107	45	35	78	21	108

## TOWN, AND ON EACH RAILROAD, AS REPORTED BY THE COMPANIES.

## HIGHWAY CROSSINGS AT GRADE ON EACH RAILROAD.

B. & N. Y. A. L. R. R.	D. & N. R. R.	H. & C. V. R. R.	H. & C. W. R. R.	Housatonic R. R.	M., W. & C. R. R. R.	Naugatuck R. R.	N. H. & D. R. R.	N. H. & N. R. R.	N. L. N. R. R.	N. Y. & N. E. R. R.	N. Y., N. H. & H. R. R.	N. Y. P. & B. R. R.	Nor. & Wor. R. R.	S., L. & N. R. R.	Shore Line R. R.	Shore Manches- ter R. R.	Total.
41	63	58	56 7	122	15	31	13	55 7	23	154	108	11	31	20	34	3	838
...	...	...	...	...	...	...	...	17	...	4	...	...	...	3	...	...	14
...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	7
...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	17
...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	8
...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	11
...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	5
...	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	...	...	9
...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	6	...	...	...	...	...	12	...	...	8	...	...	...	20
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...	...	12
7	...	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12
...	...	...	...	...	...	6	...	...	...	9	...	...	...	12	...	...	15
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2
...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
...	...	8	...	...	...	...	...	...	...	...	12	...	...	...	...	...	12
...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	3
1	...	...	...	...	...	...	...	...	6	11	...	...	...	...	...	...	18
...	15	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	15
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
...	...	...	8	...	...	3	...	...	...	...	...	...	...	...	...	...	11
49	78	66	71	128	15	54	13	79	44	223	160	22	39	35	35	3	1114

The crossings reported on the N. Y., N. H. & H. R. R. include those on the Stamford & New Canaan R. R., and the Middletown, New Britain, and Suffield branches.

The N. Y. & N. E. R. R. includes the Rockville and the Connecticut Central railroad.

The Naugatuck R. R. includes the Watertown & Waterbury R. R.

The B. & N. Y. A. L. R. R. includes the Colchester Branch.

The above tables are based upon reports originally made in 1888, and corrected by the railroad companies up to date of this report.





# STATISTICAL TABLES.

TABLE I.

Number.	1	2	3	4		5		6		7		8	
		Chartered.	Opened for use.	LOCATION OF ROAD.		LENGTH OF MAIN LINE AND BRANCHES.		DOUBLE TRACK.		SIDINGS.		LENGTH OF ROAD, SINGLE TRACK MILES.	
				From	To	Total.	In Conn.	Total.	In Conn.	Total.	In Conn.	Total.	In Conn.
1	Boston & New York Air Line, <sup>1</sup>	1875	1870-73	New Haven, Ct.	Willimantic, Ct.	51.50	51.50	.....	.....	13.01	13.01	64.51	64.51
2	Colchester, - - - - -	1876	1877	Colchester, Ct.	Turnerville, Ct.	3.59	3.59	.....	.....	90	90	4.49	4.49
3	Danbury & Norwalk, <sup>2</sup>	1850	1852	Danbury Ct.	So. Norwalk, Ct.	23.59	23.59	.....	.....	10.81	10.81	34.40	34.40
	<i>Wilson's Point Branch,</i>			Wilson's Point, Ct.	So. Norwalk, Ct.	2.69	2.69	.....	.....	4.80	4.80	7.49	7.49
	<i>Ridgfield,</i>			Branchville, Ct.	Ridgfield, Ct.	3.97	3.97	.....	.....	3.39	3.39	4.36	4.36
4	Hartford & Connecticut Western, <sup>3</sup>	1881	1871	Hartford, Ct.	Rhinecliff, N. Y.	109.75	67.25	.....	.....	20.92	14.07	131.92	81.32
	<i>Neaburgh, Dutchess &amp; Conn.,</i>			State Line, N. Y.	Millerton, N. Y.	1.25	.....	.....	.....	.....	.....	.....	.....
5	Housatonic,	1836	1840	Bridgeport, Ct.	Mass. State Line.	74.97	74.97	.....	.....	14.62	14.62	89.59	89.59
	<i>Danbury,</i>			Br'kfield Junc., Ct.	Danbury, Ct.	5.36	5.36	.....	.....	97	97	6.33	6.33
	<i>Bolsford,</i>			Huntington, Ct.	Bolsford, Ct.	9.79	9.79	.....	.....	84	84	10.63	10.63
6	Meriden, Waterbury & Conn. River,	1882	1885	Waterbury, Ct.	Cromwell, Ct.	29.50	29.50	.....	.....	7.14	7.14	37.48	37.48
	<i>Center St. Extension,</i>			In Meriden,	.....	84	84	.....	.....	.....	.....	.....	.....
7	Naugauk, - - - - -	1845	1849	Bridgeport, Ct.	Winsted, Ct.	56.55	56.55	5.40	5.40	18.54	18.54	80.49	80.49
	<i>Waterlain,</i>			Waterbury, Ct.	Watertown, Ct.	4.44	4.44	.....	.....	66	66	5.10	5.10
8	New Haven & Derby, - - -	1864	1871	New Haven, Ct.	Ansonia, Ct.	12.90	12.90	.....	.....	7.44	7.44	20.34	20.34
	<i>Huntington Branch,</i>			Derby, Ct.	Huntington, Ct.	3.79	3.79	.....	.....	1.81	1.81	5.60	5.60
9	New Haven & Northampton, -	1846	1848-81	New Haven, Ct.	Conway Junc., Ms.	94.61	51.36	.....	.....	85.61	13.79	130.25	66.05
	<i>New Hartford,</i>			Farmington, Ct.	New Hartford, Ct.	14.09	14.09	.....	.....	3.12	3.12	17.21	17.21
	<i>Williamsburg,</i>			Northampton, Ms.	Williamsburg, Ms.	7.51	.....	.....	.....	1.32	8.83	.....	.....
	<i>Turner's Falls,</i>			So. Deerfield, Mass.	Turner's Falls, Ms.	10.07	.....	.....	.....	2.35	.....	.....	.....
	<i>Holyoke &amp; Westfield,</i>			Westfield, Mass.	Holyoke, Mass.	10.32	.....	.....	.....	11.16	.....	.....	.....
10	New London Northern, <sup>4</sup>	1859	1849-67	New London, Ct.	Brattleboro, Vt.	121.00	56.00	.....	.....	33.38	19.35	154.28	75.35
	<i>Providence &amp; Worcester,</i>			Boston, Mass.	Hopewell Junc. N. Y.	214.98	134.17	112.68	60.63	112.36	57.43	440.02	252.23
11	New York & New England, <sup>5</sup>	1873	1849-81	Providence, Mass.	Providence, R. I.	1.71	.....	.....	.....	6.36	.....	7.97	.....
	<i>Providence &amp; Worcester,</i>			Worcester, Mass.	Willimantic, Ct.	58.32	31.96	1.36	.....	18.08	6.94	77.76	38.90
	<i>Providence &amp; Worcester,</i>			Cook St., N. Y. N. Ms.	Woonsocket, R. I.	28.67	.....	.....	.....	6.33	.....	35.00	.....
	<i>Providence &amp; Worcester,</i>			East Thompson, Ct.	Southbridge, Mass.	17.36	5.35	.....	.....	12	.....	30.18	6.47
	<i>Providence &amp; Worcester,</i>			East Hartford, Ct.	Jc. B. & A. R. Spfld	27.48	20.17	.....	.....	2.82	2.59	32.28	22.76
	<i>Providence &amp; Worcester,</i>			Merrose, Ct.	W. St., Rockville, Ct.	7.22	7.22	.....	.....	4.80	.....	7.46	7.46
	<i>Providence &amp; Worcester,</i>			Dedham Junc., Ms.	Dedham, Mass.	1.53	.....	.....	.....	.....	.....	2.39	.....
	<i>Providence &amp; Worcester,</i>			Islington, Mass.	.....	2.00	.....	.....	.....	.....	.....	2.00	.....
	<i>Providence &amp; Worcester,</i>			Dorrence St.,	Providence, R. I.	.....	.....	.....	.....	.....	.....	.....	.....
	<i>Providence &amp; Worcester,</i>			Freight Branch,	Hartford, Ct.	.....	.....	.....	.....	.....	.....	.....	.....
	<i>Providence &amp; Worcester,</i>			Vernon, Conn.	Rockville, Ct.	.....	.....	.....	.....	.....	.....	.....	.....
						4.43	4.43	.....	.....	.....	.....	1.65	1.65
						.....	.....	.....	.....	.....	.....	5.18	5.18

12	New York, New Haven & Hartford, <sup>1</sup>	1871	1839-70	Woodlawn Junc. N.Y.	Springfield, Mass.	122.44	102.45	143.92	114.06	106.49	93.04	394.38	321.16
	Middletown,			Berlin Junc., Ct.	Middletown, Ct.	9.70	9.70				4.73	14.43	14.43
	New Britain,			" "	New Britain, Ct.	3.18	3.18				3.66	6.84	6.84
	Suffield,			Windsor Locks, Ct.	Suffield, Ct.	4.32	4.32				1.02	5.34	5.34
	Belle Lock,			Shore Line Jct., N. H.	Belle Dock, N. H.	1.00	1.00				5.06	7.06	7.06
	Freight,			Hartford, Ct.	Hartford, Ct.	.84	.84					.84	.84
	Harlem River,			New Rochelle, N. Y.	Harlem River, N. Y.	11.50		11.50		26.16		49.16	
	New Canaan,			Stamford, Ct.	New Canaan, Ct.	7.66	7.66					8.51	8.51
	Stonington Division,			New London, Ct.	Providence, R. I.	62.11	18.16	61.66	18.16	29.53	6.79	146.30	43.11
	Warwick,			Auburn, R. I.	Buttontown, R. I.	9.90				1.62		11.52	
	Pontiac,			Auburn, R. I.	Pontiac, R. I.	4.69				.39		5.08	
	Harbor Junction,			Auburn, R. I.	Henderson St. Prov.	3.58				1.50		3.08	
	Groton Branch,			Groton, Ct.	Poquonock, Ct.	4.10	4.10			.68	.68	4.78	4.78
	Stonington Loop,			Stonington, Ct.	Stonington,	.97						.97	
	West River Branch,			N. H. & Derby R.R.	N. Haven (Un. depot)	1.66	1.66					1.66	1.66
	Valley Division,			Hartford, Ct.	Fenwick, Ct.	46.20	46.20			8.47	8.47	54.67	54.67
	Berkshire,			Conn. State Line,	W. St. Kbridge, Ms.	20.53				4.32		24.85	
	Stockbridge,			W. St. Kbridge, Ms.	State Line, Ms.	2.64				1.70		4.34	
	Providence & Worcester,			Van Deusenville Jc.	Pittsfield, Ms.	22.02				4.99		27.01	
	East Providence Branch,			Providence, R. I.	Worcester, Ms.	40.81		41.78		44.63		127.22	
	Pawtucket Valley,			Valley Falls, R. I.	E. Providence, R. I.	7.00				7.56		14.56	
				Pontiac, R. I.	Hope, R. I.	5.67				1.20		6.87	
13	Norwich & Worcester,	1833	1840	Allyn's Point, Ct.	Worcester, Mass.	66.16	47.92			23.53	15.47	89.69	63.39
14	Philadelphia, Reading & N. E.,	1832	1832	Campbell Hall, N. Y.	Silvernalls, N. Y.	57.60		4.60		15.30		89.90	
	Dutchess County Railroad,			Po Keepsale, N. Y.	Hopewell J'n, N. Y.	12.40							
15	Ridgefield & New York, <sup>7</sup>	1867		Danbury, Ct.	Portchester, N. Y.								
16	Shepaug, Litchfield & Northern, <sup>8</sup>	1877	1872	Litchfield, Ct.	Hawleyville, Ct.	32.28	32.28			3.48	3.48	41.71	41.71
	Bethel Branch,			Hawleyville, Ct.	Bethel, Ct.	5.95	5.95						
17	Shore Line, <sup>9</sup>	1864	1852	New Haven, Ct.	New London, Ct.	48.53	48.53	45.96	45.96	12.61	12.61	107.10	107.10
18	South Manchester,	1866	1869	Manchester, Ct.	So. Manchester, Ct.	2.25	2.25			1.72	1.72	3.97	3.97
	Total,	-	-			1,634.79	1,013.22	429.86	245.21	647.40	358.89	2,733.53	1,638.93

<sup>1</sup> Road commenced operations in 1870, under the charter granted to the New Haven, Middletown & Willimantic R. R. Company in 1867.

<sup>2</sup> Original charter granted to the Fairfield County R. R. Company in 1835, renewed in 1846, and name changed to D. & N. R. R. Company in 1860.

<sup>3</sup> Successor to the Connecticut Western R. R. Company, chartered in 1838.

<sup>4</sup> The New London, Willimantic & Springfield R. R. Company was incorporated in 1847. In 1848, that Company and the New London, Willimantic & Palmer R. R. Company, incorporated by the State of Massachusetts, were permitted, by the Legislature of Connecticut, to become one corporation, to be known as the N. L., W. & P. R. R. Company, the mortgage of which having been foreclosed, the holders of the mortgage bonds were incorporated as the N. L. N. R. R. Company in 1859.

<sup>5</sup> From Boston, Mass., to Putnam, Conn., 1855; from Putnam, Conn., to Willimantic, Conn., 1872; from Willimantic, Conn., to Hartford, Conn., 1849; from Hartford, Conn., to Bristol, Conn., 1850; from Bristol, Conn., to Waterbury, Conn., 1855; from Waterbury, Conn., to Fishkill-on-Hudson, N. Y., 1851; from Fishkill-on-Hudson, N. Y., to Willimantic, Conn., 1854; from East Thompson, Conn., to Southbridge, Mass., 1867; from Cook Street, Mass., to Woonsocket, R. I., 1863; Mass. State line to East Hartford, Conn., 1876.

<sup>6</sup> Hartford & New Haven R. R. Company incorporated in 1833; Hartford & Springfield R. R. Company in 1835, and privileges of its charter conferred on H. & N. H. R. R. Company in 1842. N. Y. & N. H. R. R. Company incorporated in 1844, and consolidated with H. & N. H. R. R. Company in 1848.

<sup>7</sup> Unfinished. Proposed line 30.45 miles, of which 23.10 are in Connecticut.

<sup>8</sup> Charter granted to Shepaug Valley R. R. Company in 1868.

<sup>9</sup> New Haven & New London R. R. Company incorporated in 1848; mortgage foreclosed and bondholders incorporated as Shore Line Railway Company in 1864.



TABLE II. — CAPITAL STOCK.

Number.	RAILROADS.	9 Total amount authorized.	10 Issued for Cash.	11 Issued for Bonds.	12 Issued for Stock of other Corporations.	13 Issued for undivided Earnings.	14 Issued for increased Valuation.
1	Boston & New York Air Line,...	\$4,000,000.00	.....	\$2,998,500.00	.....	.....	.....
2	Colchester,.....	50,000.00	\$25,000.00	.....	.....	.....	.....
3	Danbury & Norwalk,.....	1,000,000.00	338,416.25	.....	.....	\$101,583.75	\$160,000.00
4	Hartford & Connecticut Western,.....	3,000,000.00	.....	1,889,900.00	.....	.....	.....
5	Housatonic,.....	3,000,000.00	233,000.00	.....	.....	.....	.....
6	Meriden, Waterbury & Conn. River,...	2,500,000.00	.....	.....	\$484,000.00	.....	.....
7	Naugatuck,.....	2,000,000.00	397,696.00	273,000.00	.....	.....	.....
8	New Haven & Derby,.....	700,000.00	447,000.00	.....	.....	142,700.00	448,825.00
9	New Haven & Northampton,.....	5,000,000.00	1,882,000.00	.....	.....	.....	.....
10	New London Northern,.....	2,000,000.00	340,673.33	1,102,660.00	56,666.67	.....	.....
11	New York & New England,.....	25,000,000.00	3,817,600.00	20,000,000.00	.....	.....	.....
12	New York, New Haven & Hartford,...	100,000,000.00	7,775,000.00	.....	25,163,000.00	.....	.....
13	Norwich & Worcester,.....	8,831,600.00	2,646,900.00	.....	125,300.00	.....	.....
14	Philadelphia, Reading & New England,	6,600,000.00	.....	.....	2,000,000.00	.....	.....
15	Ridgefield & New York,.....	1,250,000.00	205,400.00	.....	.....	.....	.....
16	Shepaug, Litchfield & Northern,.....	600,000.00	.....	600,000.00	.....	.....	.....
17	Shore Line,.....	1,000,000.00	62,845.20	678,125.00	.....	.....	259,029.80
18	South Manchester,.....	40,000.00	40,000.00	.....	.....	.....	.....
	Total,.....	\$159,571,600.00	\$18,211,530.78	\$27,542,185.00	\$27,828,966.67	\$244,283.75	\$367,854.80

TABLE III. — CAPITAL STOCK.

Number.	RAILROADS.	15	16	17	18	19	20	21	22
		Otherwise issued.	Total amount issued.	Total issue per last report.	Issued per mile of road.	Amount held in Connecticut.	Amount same per last report.	Stockholders in Connecticut.	Number of same per last report.
1	Boston & New York Air Line,...	\$865,130.88	\$3,863,640.88	\$3,863,730.88	\$75,021.96	\$1,615,700.00	\$2,094,900.00	444	700
2	Central New Eng <sup>l</sup> & Western,	.....	.....	1,600,000.00	.....	.....	.....	.....	.....
3	Colchester, .....	.....	25,000.00	25,000.00	6,963.79	25,000.00	25,000.00	1	1
4	Danbury & Norwalk, .....	.....	600,000.00	600,000.00	16,574.58	59,160.00	402,450.00	69	192
5	Hartford & Connecticut Valley,	.....	.....	800,000.00	.....	.....	799,900.00	.....	9
6	Hartford & Connecticut Western,	800,000.00	2,699,000.00	2,683,100.00	24,592.26	832,500.00	827,100.00	510	513
7	Housatonic, .....	.....	484,000.00	500,000.00	15,952.53	101,300.00	1,228,300.00	119	158
8	Meriden, Waterbury & Conn. R.,	2,898,900.00	2,898,900.00	2,902,800.00	32,167.11	2,850,900.00	117,600.00	265	267
9	Naugatuck, .....	.....	2,000,000.00	2,000,000.00	32,792.26	1,712,900.00	1,412,500.00	340	477
10	New Haven & Derby, .....	.....	447,000.00	447,000.00	26,782.50	444,900.00	132,300.00	86	131
11	New Haven & Northampton, ..	578,000.00	2,460,000.00	2,460,000.00	19,475.89	2,438,900.00	2,154,000.00	26	154
12	New London Northern, .....	.....	1,500,000.00	1,500,000.00	12,396.69	825,000.00	885,200.00	172	178
13	New York & New England, .....	.....	23,817,600.00	23,665,000.00	66,057.24	162,000.00	192,200.00	48	57
14	N. York, N. Haven & Hartford,	.....	32,938,000.00	23,375,000.00	116,656.63	11,329,800.00	9,300,000.00	2,447	2,102
15	N. York, Providence & Boston,	.....	.....	5,000,000.00	.....	.....	4,361,600.00	.....	5
16	Norwich & Worcester, .....	.....	2,772,200.00	2,646,900.00	41,901.45	75,800.00	70,400.00	38	38
17	Phil., Reading & New England,	.....	6,600,000.00	.....	.....	16,100.00	.....	9	.....
18	Ridgefield & New York, .....	46,400.00	251,800.00	251,800.00	8,269.29	63,850.00	63,850.00	49	49
19	Shepaug, Litchfield & Northern,	.....	600,000.00	600,000.00	18,587.36	85,950.00	26,000.00	10	11
20	Shore Line, .....	.....	1,000,000.00	1,000,000.00	20,605.81	925,200.00	691,900.00	74	198
21	South Manchester, .....	.....	40,000.00	40,000.00	17,777.77	40,000.00	40,000.00	9	9
	Total, .....	\$5,926,209.88	\$84,997,140.88	\$75,959,330.88	\$552,575.12	\$22,104,960.00	\$24,775,200.00	4,716	5,249

TABLE IV. — DEBT.

Number.	RAILROADS	23 FUNDED DEBT.		24 CURRENT LIABILITIES.		25	26	27	28
		Total.	Total per last report.	Total.	Total per last report.	Total Debt.	Total per last report.	Funded Debt per mile of road.	Total Stock and Debt.
1	Boston & N. York Air Line,	\$500,000.00	\$500,000.00	.....	.....	\$500,000.00	\$500,000.00	\$9,708.74	\$4,363,630.88
2	Central New Eng. & West.,	3,950,000.00	3,950,000.00	.....	239,220.22	.....	4,239,220.22	.....	.....
3	Colchester,.....	25,000.00	25,000.00	.....	.....	25,000.00	25,000.00	6,963.79	50,000.00
4	Danbury & Norwalk,.....	650,000.00	650,000.00	\$50,000.00	50,000.00	700,000.00	700,000.00	17,955.80	1,300,000.00
5	Hartford & Conn. Western,	700,000.00	700,000.00	22,697.99	22,697.99	722,697.99	722,697.99	6,378.13	3,421,697.99
6	Housatonic,.....	3,000,000.00	3,000,000.00	.....	905,618.82	3,000,000.00	3,905,618.82	33,288.95	5,898,900.00
7	Meriden, Wat. & Conn. R.,	450,000.00	1,000,000.00	.....	88,637.12	450,000.00	1,088,637.12	14,881.90	984,000.00
8	Naugatuck,.....	150,000.00	150,000.00	.....	.....	150,000.00	150,000.00	2,459.42	2,150,000.00
9	New Haven & Derby,.....	1,526,900.88	1,576,900.88	.....	.....	1,526,900.88	1,576,900.88	91,485.97	1,973,900.88
10	New Haven & North pton,	3,900,000.00	3,900,000.00	.....	.....	3,900,000.00	3,900,000.00	30,876.41	6,360,000.00
11	New London Northern,.....	1,500,000.00	1,500,000.00	2,293.67	40,553.52	1,502,293.67	1,540,553.52	12,396.69	3,002,293.67
12	New York & New England,	17,187,522.50	17,218,835.00	2,065,719.44	1,640,664.47	19,253,241.94	18,859,499.47	47,668.97	43,070,841.94
13	N. Y., N. H. & Hartford,...	4,300,000.00	2,000,000.00	{ 350,000.00 }	721,407.29	8,544,955.34	2,721,407.29	15,229.32	41,482,955.34
14	N. Y., Pr'dence & Boston,	.....	2,300,000.00	.....	1,508,880.42	.....	3,808,880.42	.....	.....
15	Norwich & Worcester,.....	400,000.00	400,000.00	407,884.33	416,627.00	807,884.33	816,627.00	6,045.95	3,580,084.33
16	Phila., Read. & New Eng.,	10,100,000.00	.....	860,473.20	.....	10,960,473.20	.....	175,347.22	17,560,473.20
17	Ridgefield & New York,	.....	.....	.....	.....	.....	.....	.....	251,800.00
18	Shepaug, Litch. & North, ..	.....	.....	5,965.67	8,841.43	5,965.67	8,841.43	.....	605,965.67
19	Shore Line,.....	200,000.00	200,000.00	.....	.....	200,000.00	200,000.00	4,121.16	1,200,000.00
20	South Manchester, .....	.....	.....	13,415.55	15,355.52	13,415.55	15,355.52	.....	58,415.55
	Total,.....	\$44,589,423.38	\$9,070,735.88	7,673,405.19	5,708,503.80	52,262,828.57	44,779,239.68	474,758.42	137,259,959.45

\*Deferred liability.



TABLE V. — PROPERTY ACCOUNTS.

Number.	RAILROADS.	29 Cost of Road.	30 Cost of Equipment.	31 Bonds and Stocks.	32 Other Permanent Investments.	33 Cash and Current Assets.	34 Other Assets.	35 Total.	36 Cost of Road per Mile.
1	Boston & New York Air Line,	\$4,436,237.83	\$129,931.94	\$38,152.79	.....	\$1,262.53	.....	\$4,605,585.09	\$86,140.54
2	Colchester, .....	50,000.00	.....	.....	.....	.....	.....	50,000.00	13,927.57
3	Danbury & Norwalk, .....	1,170,270.83	228,971.89	50,000.00	.....	.....	.....	1,449,242.72	32,927.92
4	Hartford & Conn. Western, ..	2,921,747.46	373,867.97	37,672.58	\$99,099.47	.....	.....	3,432,387.48	26,621.84
5	Housatonic, .....	5,203,645.91	1,581,536.15	.....	178,481.32	.....	.....	6,963,663.38	57,741.30
6	Meriden, Waterbury & Conn. R.,	934,000.00	.....	.....	.....	.....	.....	934,000.00	30,784.43
7	Naugatuck, .....	2,024,697.45	297,086.57	.....	101,500.00	.....	.....	2,423,284.02	35,803.67
8	New Haven & Derby, .....	1,806,291.98	200,675.62	.....	.....	.....	.....	2,006,967.60	108,225.95
9	New Haven & Northampton,	5,731,586.62	850,430.62	21,000.00	.....	646.89	\$210,000.00	6,813,664.13	45,380.00
10	New London Northern, .....	2,978,951.51	248,420.44	150,000.00	93,170.00	62,962.24	27,071.13	3,560,575.32	24,619.43
11	New York & New England, ..	35,002,209.15	5,335,063.04	.....	.....	1,686,763.81	576,770.51	42,600,806.51	97,077.35
12	N. Y., N. H. & Hartford, .....	35,549,319.73	5,111,514.86	2,463,959.77	3,763,000.00	2,737,400.81	1,501,343.06	51,126,538.23	125,905.15
13	Norwich & Worcester, .....	3,616,095.65	179,750.67	489,275.00	.....	154,394.87	42,478.62	4,486,101.89	54,656.83
14	Phila., Read. & New Eng., ..	15,857,725.04	321,936.59	900,063.00	3,107.08	180,744.92	57,890.13	17,318,359.68	275,307.72
15	Ridgefield & New York, .....	220,860.16	.....	.....	.....	.....	.....	220,860.16	7,253.18
16	Shepaug, Litch. & Northern, ..	605,118.78	45,619.12	.....	.....	10,004.45	.....	660,742.35	18,745.93
17	Shore Line, .....	1,169,496.10	.....	.....	.....	1,453.72	.....	1,170,949.82	24,128.38
18	South Manchester, .....	80,804.75	25,817.92	.....	.....	.....	3,809.40	110,432.07	35,928.00
	Total, .....	\$119,359,058.95	14,930,623.40	4,150,123.14	4,238,357.87	4,885,634.24	2,419,363.45	149,933,160.45	73,011.86

TABLE VI. — EARNINGS.

Number.	RAILROADS.	GROSS.				NET.			
		37	38	39	40	41	42	43	44
		Total.	Total. per last report.	Per mile of road operated.	Per mile run.	Total.	Total per last report.	Per mile of road operated.	Per mile run.
1	Boston & N. Y. Air Line,*	.....	.....	.....	.....	.....	.....	.....	.....
2	Cent. New Eng. & Western,	.....	666,358.03	.....	.....	.....	65,675.47	.....	.....
3	Colchester,*	.....	.....	.....	.....	.....	.....	.....	.....
4	Danbury & Norwalk,*	.....	.....	.....	.....	.....	.....	.....	.....
5	Hartford & Conn. Western,	.....	.....	.....	.....	.....	.....	.....	.....
6	Housatonic,*	.....	1,586,334.11	.....	.....	.....	553,045.07	.....	.....
7	Mer., Watrby & Conn. Riv.,†	.....	86,280.99	.....	.....	.....	.....	.....	.....
8	Naugatuck,*	.....	.....	.....	.....	.....	.....	.....	.....
9	New Haven & Derby,*	.....	.....	.....	.....	.....	.....	.....	.....
10	New Haven & Northamp'n,*	.....	.....	.....	.....	.....	.....	.....	.....
11	New London Northern, ..	\$698,055.32	658,104.96	\$6,980.55	.939	\$215,200.91	240,755.33	\$2,152.00	\$0.289
12	New York & New England,†	6,413,061.55	6,216,617.26	.....	.....	1,900,773.03	1,664,175.61	.....	.....
13	N. Y., N. H. & Hartford,†	18,113,474.38	11,918,701.08	21,359.47	1.372	5,707,540.11	3,640,690.39	6,730.35	.432
14	N. Y., Prov. & Boston,*	.....	3,157,749.65	.....	.....	.....	1,136,727.09	.....	.....
15	Norwich & Worcester,†	.....	.....	.....	.....	.....	.....	.....	.....
16	Phila., Read. & New Eng.,	1,023,218.08	.....	5,653.13	.701	34,355.64	.....	1,898.10	.236
17	Ridgefield & New York,	.....	.....	.....	.....	.....	.....	.....	.....
18	Shenpaug, ..	69,474.16	65,614.64	1,817.27	.975	3,338.87	6,554.18	87.29	.047
19	Shore Line,*	.....	.....	.....	.....	.....	.....	.....	.....
20	South Manchester, ..	19,932.05	19,024.90	8,858.69	1.022	2,039.75	5,693.88	906.56	.105
	Total, .....	\$26,337,215.54	\$24,369,785.62	\$15,359.66	\$1.218	\$7,863,248.31	\$7,303,317.02	\$4,585.79	\$0.363

\*Included in N. Y., N. H. &amp; H. R. R. Co.

†Included in N. Y. &amp; N. E. R. R. Co.

‡Includes ten months for M., W. &amp; C. R. R. Co.

TABLE VII.

Number.	RAILROADS.	DIVIDENDS.						49 Paid for taxes.	50 Paid for interest.	51 Paid for insurance.
		45 Total Amount paid.	46 Total per last report.	47 Capital Stock on which Dividends were paid.	48 Capital Stock on which no Divi- dends were paid.	48				
1	Boston & New York Air Line,...	\$119,940.00	\$119,940.00	\$2,998,500.00	\$865,130.88				\$26,750.00	
2	Colchester, .....				25,000.00					
3	Danbury & Norwalk, .....	30,000.00	30,000.00	600,000.00					33,500.00	
4	Hartford & Connecticut Valley, .....		32,000.00							
5	Hartford & Connecticut Western, .....	53,845.00	53,662.00	2,699,000.00	23,300.00				35,000.00	
6	Housatonic, .....	28,756.00		2,875,600.00	434,000.00				149,000.00	
7	Meriden, W. & Conn. River, .....								19,166.67	
8	Naugatuck, .....	200,000.00	200,000.00	2,000,000.00					6,000.00	
9	New Haven & Derby, .....	13,410.00	8,940.00	447,000.00					88,114.05	
10	New Haven & Northampton, .....	49,200.00	49,200.00	2,460,000.00					233,000.00	
11	New London Northern, .....	120,000.00	108,750.00	1,500,000.00				\$28,692.94	68,120.00	\$1,511.21
12	New York & New England, .....		*243,775.00		23,817,600.00			249,003.44	1,093,571.66	30,348.10
13	N. Y., New Haven & Hartford, .....	2,945,535.00	2,103,750.00	32,938,000.00				845,858.05	262,884.75	28,377.43
14	N. Y., Providence & Boston, .....		500,000.00							
15	Norwich & Worcester, .....	216,232.00	211,224.00	2,765,600.00	6,600.00				24,380.00	354.13
16	Phila., Read, & New England, .....				6,600,000.00			38,720.41	244,141.58	
17	Ridgefield & New York, .....				251,800.00					
18	Shepaug, .....				600,000.00			604.90		300.00
19	Shore Line, .....	80,000.00	72,500.00	1,000,000.00				17,000.00	9,073.75	
20	South Manchester, .....				40,000.00			313.55		127.62
	Total, .....	\$3,856,918	\$3,733,741.00	\$52,283,700.00	\$32,713,430.88			\$1,180,193.29	\$2,292,702.46	\$61,018.49

\* Payment of Dividend No. 13, viz., \$128,275, on preferred stock of N. Y. & N. E. R. R., due May 1st, 1892, was enjoined, and consequently not paid. Amount paid in 1892 should have, therefore, been shown in table No. 7 as \$115,500.00 instead of \$243,775.00, and total dividends paid as \$3,605,466.00, instead of \$3,733,741.00.



TABLE VIII.—OPERATING EXPENSES.

Number.	RAILROADS.	52 Maintenance of Way and Structures.	53 Maintenance of Equipment.	54 Conducting Transportation.	55 General Expenses.	56 Total.	57 Total miles operated.	58 Per mile of road operated.	59 Per mile run.
1	Boston & N. Y. Air Line.								
2	Colchester,.....								
3	Danbury & Norwalk,.....								
4	Hartford & Conn. West'n,								
5	Housatonic,.....								
6	M., W. & Conn. River,.....								
7	Naugatuck,.....								
8	New Haven & Derby,.....								
9	New Haven & North pton,								
10	New London Northern,.....	\$81,058.42	\$54,295.08	\$335,315.02	\$12,185.89	\$482,854.41	100.00	\$4,828.54	\$ .650
11	N. Y. & New England,...	536,575.28	579,144.05	2,886,639.71	509,929.48	4,512,288.52	545.19	8,276.54	.736
12	N. Y., N. H. & Hartford,	2,190,984.50	1,706,204.13	7,346,315.53	1,162,430.11	12,405,934.27	848.03	14,629.12	.940
13	Norwich & Worcester.....								
14	Phil., Read. & New Eng.,	201,615.57	137,509.45	622,530.74	27,206.68	988,862.44	181.00	5,463.33	.678
15	Ridgefield & New York,...								
16	Shepaug, Litchf'd & Nor'n,	30,011.85	8,069.16	20,857.05	7,197.23	66,135.29	38.23	1,729.93	.928
17	Shore Line,.....								
18	South Manchester,.....	4,354.78	3,598.24	7,398.18	2,541.10	17,892.30	2.25	7,952.13	.918
Total, .....		\$3,044,600.40	\$2,488,820.11	\$11,219,056.23	\$1,721,490.49	\$18,473,967.23	1,714.70	\$10,773.88	\$0.855

TABLE IX. — MAINTENANCE OF WAY AND STRUCTURES.

Number.	RAILROADS.	60 Repairs of road- bed and track.	61 Repairs of bridges and culverts.	62 Repairs of buildings.	63 Miscellaneous.	64 Total.	65 Per mile of road operated.	66 Per mile run.
1	Boston & New York Air Line,							
2	Colchester,							
3	Danbury & Norwalk,							
4	Hartford & Conn. Western,							
5	Housatonic,							
6	Meriden, Wat. & Conn. River,							
7	Naugatuck,							
8	New Haven & Derby,							
9	New Haven & Northampton,							
10	New London & Northern,	\$53,863.05	\$9,857.78	\$6,279.03	\$11,058.56	\$81,058.42	\$810.58	.109
11	New York & New England,	442,387.91	35,982.95	41,826.45	16,377.97	536,575.28	984.20	.088
12	N. Y., N. H. & Hartford,	1,443,623.83	161,005.26	342,860.21	243,495.29	2,190,984.50	2,583.62	.166
13	Norwich & Worcester,							
14	Phila., Red. & New Eng.,	152,527.73	13,765.04	14,090.74	21,232.06	201,615.57	1,113.89	.138
15	Ridgefield & New York,							
16	Shepaug, Litchfield & North'n,	22,869.44	5,231.03	842.63	1,068.75	30,011.85	785.03	.421
17	Shore Line,							
18	South Manchester,	3,971.89	58.53	318.43	5.93	4,354.78	1,935.46	.223
	Total,	\$2,119,243.85	\$225,900.59	\$406,217.49	\$293,238.47	\$3,044,600.40	\$1,775.59	.141

TABLE X — MAINTENANCE OF EQUIPMENT.

Number.	RAILROADS.	REPAIRS AND RENEWALS.				70	71	72	73	74
		67	68	69						
		Locomotives.	Passenger Cars.	Freight Cars.	Shop machinery, tools, etc.,	Other Expenses.	Total.	Per mile of road operated.	Per mile run.	
1	Boston & N. Y. Air Line, . . . . .									
2	Colchester, . . . . .									
3	Danbury & Norwalk, . . . . .									
4	Hartford & Conn. West'n, . . . . .									
5	Housatonic, . . . . .									
6	M., W. & Conn. River, . . . . .									
7	Naugatuck, . . . . .									
8	New Haven & Derby, . . . . .									
9	New Haven & Northampton, . . . . .									
10	New London Northern, . . . . .	\$27,929.95	\$5,563.04	\$15,435.96	\$1,432.51	\$3,933.62	\$54,295.08	\$542.95	.074	
11	N. Y. & New England, . . . . .	232,897.55	86,747.06	202,425.03	21,325.73	35,748.68	579,144.05	1,062.28	.094	
12	N. Y., N. H. & Hartford, . . . . .	428,432.15	654,622.69	445,842.44	68,130.52	109,176.33	1,706,204.13	2,011.96	.129	
13	Norwich & Worcester, . . . . .									
14	Phil., Read. & N. England, . . . . .	80,000.75	46,960.60	8,970.51	1,577.59		137,509.45	759.72	.094	
15	Ridgefield & New York, . . . . .									
16	Shepaug, Litch'd & North'n, . . . . .	6,034.21	987.01	997.83	50.11		8,069.16	211.07	.113	
17	Shore Line, . . . . .									
18	South Manchester, . . . . .	439.87	2,984.92		11.45	162.00	3,598.24	1,599.21	.185	
	Total, . . . . .	\$775,734.48	\$797,865.32	\$673,671.77	\$92,527.91	\$149,020.63	\$2,488,820.11	\$1,451.46	.115	



TABLE XI. — EXPENSES OF TRANSPORTATION.

Number.	RAILROADS.	WAGES.					78 Fuel for Locomotives.	79 Injuries to Persons.	80 Damages or Loss of Property.	81 Other Expenses.	82 Total.
		75 Trainmen.	76 Switchmen, Flagmen, and Watchmen.	77 Station Agents, Clerks, and Laborers.							
1	Boston & N. York Air Line.										
2	Colchester, . . . . .										
3	Danbury & Norwalk, . . . . .										
4	Hartford & Conn. Western, . . . . .										
5	Housatonic, . . . . .										
6	Meriden, Wat. & Conn. Riv., . . . . .										
7	Naugatuck, . . . . .										
8	New Haven & Derby, . . . . .										
9	New Haven & Northampton, . . . . .										
10	New London Northern, . . . . .	\$89,179.29	\$4,272.19	\$78,087.66	\$87,727.45	\$3,915.80	\$4,075.40	\$68,057.23	\$335,315.02		
11	New York & New England, . . . . .	899,785.64	225,528.83	577,625.22	645,706.39	47,560.48	48,016.06	442,417.09	2,886,639.71		
12	N. Y., N. H. & Hartford, . . . . .	2,165,651.38	367,108.29	1,833,320.50	1,136,383.83	96,295.00	37,733.52	1,709,823.01	7,346,315.53		
13	Norwich & Worcester, . . . . .										
14	Phila., Red. & New Eng., . . . . .	249,266.16	12,136.44	43,702.80	160,357.63		2,950.63	154,117.08	622,530.74		
15	Ridgefield & New York, . . . . .										
16	Shepaug, Litch. & Northern, . . . . .	9,391.50		3,878.26	5,764.91		187.72	1,634.66	20,857.05		
17	Shore Line, . . . . .										
18	South Manchester, . . . . .	4,295.00		1,210.00	1,396.94			496.24	7,398.18		
	Total, . . . . .	\$3,417,568.97	\$609,045.75	\$2,537,824.44	\$2,037,337.15	\$147,771.28	\$92,963.33	\$2,376,545.31	\$11,219,056.23		

TABLE XII. — PASSENGER TRAFFIC.

Number.	RAILROADS.	TRANSPORTATION.			86 Average distance carried.	87 Total passenger Revenue.	88 Average amount received from each passen- ger.	89 Average receipts per passenger per mile.	90 Estimated cost of carrying each passenger one mile.	91 Passenger earnings per mile of road.	92 Passenger earnings per train mile.
		83 Passengers carried.	84 Same per last report.	85 Passengers carried one mile.							
1	Boston & New York Air Line.....										
2	Colchester.....										
3	Central New England & Western.....		413,827								
4	Hartford & Connecticut Western.....										
5	Danbury & Norwalk.....										
6	Housatonic.....		1,422,417								
7	Meriden, Waterbury & Conn. River.....		61,564								
8	Naugatuck.....										
9	New Haven & Derby.....										
10	New Haven & Northampton.....										
11	New London & Northern.....	698,620	613,989	10,454,760	14.96	\$255,435.80	\$0.3605	\$0.0244	\$0.0222	\$2,824.95	\$1.021
12	New York & Northern.....	9,124,510	8,759,010	105,460,090	11.558	2,120,224.03	.2227	.02010	.01376	4,462.04	1.12550
13	New York & New Haven & Hartford.....	23,187,894	14,658,905	476,528,944	20.55	8,563,340.44	.3693	.01797	.01305	11,565.09	1.54353
14	New York, Providence & Boston.....		6,500,321								
15	Norwich & Worcester.....										
16	Phila., Reading & New England.....	398,135		9,035,487	22.694	178,428.92	.44816	.01974	.03500	1,098.08	.49466
17	Ridgefield & New York.....										
18	Shepaug, Litchfield & Northern.....	32,440	26,132	682,490	21.04	24,400.36	.75217	.03575	.05875	802.91	.67478
19	Shore Line.....										
20	South Manchester.....	169,420	164,880	381,195	2.25	11,517.92	.00798	.03021	.03129	5,176.36	.66782
	Total, r.....	33,611,019	32,621,045	602,542,966	17.93	\$11,153,347.47	\$0.33184	\$0.01213	\$0.13723	\$7,423.89	\$1.3888

TABLE XIII. — FREIGHT TRAFFIC.

Number.	RAILROADS.	TRANSPORTATION.			96 Average distance haul of one ton.	97 Total freight Revenue.	98 Average amount received for each ton of freight.	99 Average receipts per ton per mile.	100 Estimated cost of carrying one ton one mile.	101 Freight earnings per mile of road.	102 Freight earnings per train mile.
		93 Total tons carried.	94 Same per last report.	95 Tons carried one mile.							
1	Boston & New York Air Line,.....										
2	Colchester,.....										
3	Central New England & Western,.....										
4	Hartford & Connecticut Western,.....		655,391.00								
5	Danbury & Norwalk,.....										
6	Housatonic,.....		935,465.00								
7	Meriden, Waterbury & Conn. River,		133,575.00								
8	Naugatuck,.....										
9	New Haven & Derby,.....										
10	New Haven & Northampton,.....										
11	New London & Northern,.....	634,142	555,879.00	35,621.250	56.00	\$415,559.81	\$0.65400	\$0.01160	\$0.00070	\$4,155.59	\$1.06270
12	New York & New England,.....	3,549,011	3,273,110.68	339,694.348	95.72	3,805,674.61	1.07232	.01120	.00901	7,141.92	1.47370
13	New York & New Haven & Hartford,.....	6,859,100	4,120,477.00	419,056.144	61.095	7,825,106.99	1.14084	.01867	.01477	9,713.49	2.12685
14	New York, Providence & Boston,.....		2,114,961.00								
15	Norwich & Worcester,.....										
16	Phila., Reading & New England,.....	1,012,116		85,740,558	84.714	818,845.26	.80904	.00955	.00784	4,555.47	.99420
17	Ridgefield & New York,.....										
18	Shenpaug, Litchfield & Northern,.....	38,546	39,886.00	789,684	20.48	40,997.29	1.06359	.05191	.03297	1,162.71	1.70481
19	Shore Line,.....										
20	South Manchester,.....	28,825	24,963.00	64,856	2.25	8,285.23	.28743	.12775	.09195	3,632.32	4.02195
	Total,.....	12,121,740	11,852,710.68	880,966,840	72.68	\$12,914,409.19	\$1.065	\$0.1739	\$0.01158	\$7,762.33	\$1.7889



TABLE XIV. — FUEL FOR LOCOMOTIVES.

Number.	RAILROADS.	COAL.		WOOD.		107 Total tons fuel consumed.	108 Total cost.	109 Total miles run.	110 Average pounds consumed per mile.
		103 Number of tons.	104 Average cost per ton.	105 Number of cords.	106 Average cost per cord.				
1	Boston & New York Air Line.	.....	.....	.....	.....	.....	.....	.....	.....
2	Colchester,.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Danbury & Norwalk,.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Hartford & Connecticut Western,	.....	.....	.....	.....	.....	.....	.....	.....
5	Housatonic,.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Meriden, Waterbury & Conn. River.	.....	.....	.....	.....	.....	.....	.....	.....
7	Naugatuck,.....	.....	.....	.....	.....	.....	.....	.....	.....
8	New Haven & Derby,.....	.....	.....	.....	.....	.....	.....	.....	.....
9	New Haven & Northampton,.....	.....	.....	.....	.....	.....	.....	.....	.....
10	New London Northern,.....	29,242	\$3.00	.....	.....	29,242	\$87,726.00	742,862	78
11	New York & New England,.....	245,775.60	2.67	.....	.....	245,775.60	656,219.92	6,131,634	80.16
12	N. Y., New Haven & Hartford,.....	415,274	2.79	840	\$3.36	415,694	1,161,436.86	13,202,473	62.97
13	Norwich & Worcester,.....	.....	.....	.....	.....	.....	.....	.....	.....
14	Phila., Read. & New England,.....	52,861	3.03	.....	.....	52,861	160,168.83	1,457,839	72.52
15	Ridgefield & New York,.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Shepaug, Litchfield & Northern, ...	1,813.67	3.16	13	2.75	1,822.33	5,767.99	71,243	51.15
17	Shore Line,.....	.....	.....	.....	.....	.....	.....	.....	.....
18	South Manchester,.....	332.42	4.62	4.50	5.00	335.42	1,556.34	19,500	34.40
	Total,.....	745,298.69	.....	857.50	.....	745,730.35	\$2,072,875.94	21,025,551	68.97

TABLE XV. — MILEAGE AND EMPLOYES.

Number.	RAILROADS.	111 Passenger trains.	112 Freight trains.	113. Other trains.	114 Total.	115. Total per last report.	116 Employees, including officers.	117 Same per last report.
1	Boston & New York Air Line,					1,036,643		751
2	Central New England & Western,							
3	Colchester,							
4	Danbury & Norwalk,							
5	Hartford & Connecticut Western,					1,879,830		1,233
6	Housatonic,					111,190		113
7	Meriden, Waterbury & Conn. River,							
8	Naugatuck,							
9	New Haven & Derby,							
10	New Haven & Northampton,							
11	New London Northern,							
12	New York & New England,							
13	New York, New Haven & Hartford,							
14	New York, Providence & Boston,							
15	Norwich & Worcester,							
16	Philadelphia, Reading & New England,							
17	Ridgefield & New York,							
18	Shepaug, Litchfield & Northern,							
19	Shore Line,							
20	South Manchester,							
	Total,	9,195,095	7,426,738	5,003,718	21,625,551	20,476,673	20,415	17,489

TABLE XVI. — EQUIPMENT.

Number	RAILROADS.	LOCOMOTIVES.		CARS.				CARS WITH TRAIN BRAKE.		CARS WITH AUTOMATIC COUPLERS.	
		118	119	120j	121	122	123	124	125	126	127
		Num- ber.	With train brake.	Passen- ger-ser- vice.	Freight and other.	Total.	Total per last report.	In pas- senger-ser- vice.	In freight service.	In pas- senger-ser- vice.	In freight service.
1	Boston & New York Air Line,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	Central New England & Western,	.....	.....	.....	.....	.....	560	.....	.....	.....	.....
3	Colchester, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Danbury & Norwalk, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Hartford & Connecticut Western, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Housatonic, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	Meriden, Waterbury & Conn. River,	.....	.....	.....	.....	.....	1,441	.....	.....	.....	.....
8	Naugatuck, .....	.....	.....	.....	.....	.....	165	.....	.....	.....	.....
9	New Haven & Derby, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	New Haven & Northampton, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	New London Northern, .....	25	16	22	355	377	447	22	.....	22	.....
12	New York & New England, .....	212	212	247	5,337	5,584	5,584	247	179	247	1,195
13	New York, New Haven & Hartford, .....	422	352	1,049	8,179	9,228	5,211	1,049	128	1,019	1,633
14	New York, Providence & Boston, .....	.....	.....	.....	.....	.....	2,632	.....	.....	.....	.....
15	Norwich & Worcester, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Phila., Read. & New England, .....	29	11	28	517	545	.....	28	.....	28	.....
17	Ridgefield & New York, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Shepaug, Litchfield & Northern, .....	4	4	6	43	49	50	6	4	6	4
19	Shore Line, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	South Manchester, .....	2	2	4	.....	4	4	4	.....	4	.....
	Total, .....	694	597	1,356	14,431	15,787	16,094	1,356	311	1,326	2,832



TABLE XVII.

Number.	RAILROADS.	STATIONS.			RAILS.		HIGHWAY GRADE CROSSINGS IN CONNECTICUT.		
		128 On main line and branches.	129 In Conn.	130 Average number of miles for each station in Conn.	131 Miles of steel.	132 Miles of iron.	133 New ties laid during the year.	134 At grade.	135 At grade per last report.
1	Boston & New York Air Line, . . . . .	16	16	3.22	109.10	17.76	.....	47	47
2	Colchester, . . . . .	2	2	1.80	7.60	1.38	.....	2	2
3	Danbury & Norwalk, . . . . .	16	16	1.89	30.25	.....	.....	*61	77
4	Hartford & Connecticut Valley, . . . . .	40	27	2.49	97.96	11.79	.....	.....	66
5	Hartford & Connecticut Western, . . . . .	38	23	2.89	226.45	9.52	.....	.....	71
6	Housatonic, . . . . .	15	15	2.02	37.48	.....	.....	128	141
7	Meriden, Waterbury & Connecticut River, . . . . .	21	21	2.90	151.16	18.14	.....	15	15
8	Naugatuck, . . . . .	8	8	2.09	20.08	3.21	.....	54	54
9	New Haven & Derby, . . . . .	38	18	3.37	224.46	47.50	.....	13	18
10	New Haven & Northampton, . . . . .	43	25	2.43	100.00	30.25	.....	79	79
11	New London Northern, . . . . .	203	77	2.72	694.23	151.43	36,717	44	44
12	New York & New England, . . . . .	184	80	2.18	1,491.74	62.20	178,329	223	223
13	New York, New Haven & Hartford, . . . . .	.....	.....	.....	.....	.....	454,265	247	159
14	New York, Providence & Boston, . . . . .	26	16	3.06	.....	.....	.....	39	39
15	Norwich & Worcester, . . . . .	68	29	2.60	197.45	29.95	66,958	72	.....
16	Philadelphia, Reading & New England, . . . . .	.....	.....	.....	.....	.....	.....	.....	.....
17	Ridgefield & New York, . . . . .	14	14	2.72	33.92	8.43	6,327	*52	37
18	Shepaug, Litchfield & Northern, . . . . .	23	23	2.11	.....	.....	.....	35	41
19	Shore Line, . . . . .	2	2	1.13	2.25	1.72	895	3	3
20	South Manchester, . . . . .	.....	.....	.....	.....	.....	.....	.....	.....
	Total, . . . . .	757	412	3.05	3,424.13	393.28	742,991	1,114	1,140

\* The decrease in number of crossings shown on D. & N. Road, June 30, 1893, as compared with the number as given June 30, 1892, is in consequence of the Bethel Branch, formerly operated by the D. & N. Road, now being operated by the Shepaug, Litchfield & Northern R. R. Co., on which road a corresponding increase appears.

TABLE XVIII.—GENERAL PERCENTAGE.

Number.	RAILROADS.	136	137	138	139	140	141	142
		Gross earnings to capital and debt.	Net earnings to capital and debt.	Net earnings to permanent investments.	Net earnings to gross earnings.	Operating expense to gross earnings.	Passenger revenue to gross earnings.	Freight revenue to gross earnings.
1	Boston & New York Air Line, . . . . .							
2	Colchester, . . . . .							
3	Danbury & Norwalk, . . . . .							
4	Hartford & Connecticut Western, . . . . .							
5	Housatonic, . . . . .							
6	Meriden, Waterbury & Conn. River, . . . . .							
7	Naugatuck, . . . . .							
8	New Haven & Derby, . . . . .							
9	New Haven & Northampton, . . . . .							
10	New London Northern, . . . . .	23.25	7.17	6.20	30.82	69.17	36.59	59.53
11	New York & New England, . . . . .	14.89	4.41	4.71	29.64	70.36	33.06	59.34
12	New York, New Haven & Hartford, . . . . .	43.66	13.85	12.17	31.51	68.49	47.28	43.20
13	Norwich & Worcester, . . . . .							
14	Philadelphia, Reading & New Eng., . . . . .	61.27	20.57		33.58	46.64	17.44	80.03
15	Ridgefield & New York, . . . . .							
16	Shepaug, Litchfield & Northern, . . . . .	11.47	.55	.51	4.81	95.19	35.12	59.01
17	Shore Line, . . . . .							
18	South Manchester, . . . . .	37.31	3.82	1.91	10.23	89.76	57.79	41.56
	Total, . . . . .	19.19	5.72	7.24	29.86	70.14	42.35	49.29

TABLE XIX. — ACCIDENTS IN CONNECTICUT RESULTING IN DEATH OR INJURY TO PERSONS.

Number.	GENERAL STATEMENT.							HIGHWAY CROSSINGS.		EMPLOYEES.					PASSENGERS.		THREE-PASSENGERS.		OTHERS.	
	143	144	145	146	147	148	149	Fatal.	Not fatal.	Falling from engine or car.	Coupling or un-coupling.	Overhead obstructions.	Other causes.	Fatal.	Not fatal.	Fatal.	Not fatal.	Fatal.	Not fatal.	
RAILROADS.																				
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				



## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	CAPITAL STOCK.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,.....	\$3,862,230.88	\$3,862,230.88	\$3,862,230.88	\$3,862,730.88	\$3,863,630.88
2	Central New England & Western,....	1,600,000.00	1,600,000.00	1,600,000.00	1,600,000.00	1,600,000.00
3	Colchester,.....	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
4	Danbury & Norwalk,.....	600,000.00	600,000.00	600,000.00	600,000.00	600,000.00
5	Hartford & Connecticut Valley,.....	799,200.00	800,000.00	800,000.00	800,000.00	800,000.00
6	Hartford & Connecticut Western,....	2,634,200.00	2,668,700.00	2,670,200.00	2,683,100.00	2,699,000.00
7	Housatonic,.....	2,970,300.00	2,904,500.00	2,902,800.00	2,902,800.00	2,898,900.00
8	Meriden, Waterbury & Conn. River,...	500,000.00	500,000.00	500,000.00	500,000.00	484,000.00
9	Naugatuck,.....	2,000,000.00	2,000,000.00	2,000,000.00	2,000,000.00	2,000,000.00
10	New Haven & Derby,.....	447,000.00	447,000.00	447,000.00	447,000.00	447,000.00
11	New Haven & Northampton,.....	2,460,000.00	2,460,000.00	2,460,000.00	2,460,000.00	2,460,000.00
12	New London Northern,.....	1,500,000.00	1,500,000.00	1,500,000.00	1,500,000.00	1,500,000.00
13	New York & New England,.....	22,583,700.00	22,700,000.00	22,700,000.00	23,665,000.00	23,817,600.00
14	New York, New Haven & Hartford,...	15,500,000.00	18,600,000.00	18,700,000.00	23,375,000.00	32,938,000.00
15	New York, Providence & Boston,...	4,000,000.00	5,000,000.00	5,000,000.00	5,000,000.00	5,000,000.00
16	Norwich & Worcester,.....	2,604,400.00	2,626,900.00	2,626,900.00	2,646,900.00	2,772,200.00
17	Phila., Reading & New England,...	251,300.00	251,800.00	251,800.00	251,800.00	6,600,000.00
18	Ridgefield & New York,.....	108,750.00	251,800.00	251,800.00	251,800.00	251,800.00
19	Rockville,.....	599,400.00	599,400.00	600,000.00	600,000.00	600,000.00
20	Shepaug, Litchfield & Northern,...	1,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00
21	Shore Line,.....	40,000.00	40,000.00	40,000.00	40,000.00	40,000.00
22	South Manchester,.....	99,877.46	99,877.46	99,877.46	99,877.46	99,877.46
23	Stamford & New Canaan,.....	118,200.00	118,200.00	118,200.00	118,200.00	118,200.00
24	Watertown & Waterbury,.....	118,200.00	118,200.00	118,200.00	118,200.00	118,200.00
Total,.....		\$64,703,558.34	\$70,404,108.34	\$70,286,430.88	\$75,959,330.88	\$84,997,130.88

COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	FUNDED DEBT.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,.....	\$500,000.00	\$500,000.00	\$500,000.00	\$500,000.00	\$500,000.00
2	Central New England & Western,....	.....	2,500,000.00	2,500,000.00	3,950,000.00	.....
3	Colchester,.....	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
4	Danbury & Norwalk,.....	650,000.00	650,000.00	650,000.00	650,000.00	650,000.00
5	Hartford & Connecticut Valley,.....	.....	.....	.....	.....	.....
6	Hartford & Connecticut Western,....	608,000.00	608,000.00	700,000.00	700,000.00	700,000.00
7	Housatonic,.....	3,189,000.00	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00
8	Meriden, Waterbury & Conn. River,...	.....	400,000.00	400,000.00	1,000,000.00	450,000.00
9	Naugatuck,.....	150,000.00	150,000.00	150,000.00	150,000.00	150,000.00
10	New Haven & Derby,.....	1,577,620.88	1,576,900.88	1,576,900.88	1,576,900.88	1,526,900.88
11	New Haven & Northampton,.....	3,900,000.00	3,900,000.00	3,900,000.00	3,900,000.00	3,900,000.00
12	New London Northern,.....	1,499,500.00	1,499,500.00	1,499,500.00	1,500,000.00	1,500,000.00
13	New York & New England,.....	16,750,549.86	16,748,625.00	17,209,535.00	17,218,835.00	17,187,522.50
14	New York, New Haven & Hartford,...	2,000,000.00	2,000,000.00	2,000,000.00	2,000,000.00	2,000,000.00
15	New York, Providence & Boston,....	1,300,000.00	1,300,000.00	1,300,000.00	2,300,000.00	4,300,000.00
16	Norwich & Worcester,.....	400,000.00	400,000.00	400,000.00	400,000.00	.....
17	Phila., Reading & New England,.....	.....	.....	.....	.....	400,000.00
18	Ridgefield & New York,.....	.....	.....	.....	.....	10,100,000.00
19	Shepaug, Litchfield & Northern,....	.....	.....	.....	.....	.....
20	Shore Line,.....	200,000.00	200,000.00	200,000.00	200,000.00	200,000.00
21	South Manchester,.....	.....	.....	.....	.....	.....
22	Stamford & New Canaan,.....	.....	.....	.....	.....	.....
23	Watertown & Waterbury,.....	19,000.00	19,000.00	.....	.....	.....
Total,.....		\$82,768,670.74	\$85,477,025.88	\$86,010,935.88	\$89,070,735.88	\$44,589,423.38

## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	FLOATING DEBT.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,.....	\$2,000.00				
2	Central New England & Western,.....		\$734,711.57	\$949,136.24	\$289,220.22	
3	Colchester,.....					\$50,000.00
4	Danbury & Norwalk,.....	50,000.00	50,000.00	50,000.00	50,000.00	
5	Hartford & Connecticut Valley,.....	95,672.49		22,697.99	22,697.99	23,697.99
6	Hartford & Connecticut Western,.....	287,035.83	613,424.60	741,790.89	905,618.82	
7	Housatonic,.....	1,090,632.98	757,462.45	872,871.39	88,637.12	
8	Meriden, Waterbury & Conn. River,.....					
9	Naugatuck,.....					
10	New Haven & Derby,.....	76,473.96				
11	New Haven & Northampton,.....	50.00	50.00			
12	New London Northern,.....	141,456.96	115,956.92	104,583.67	40,553.52	2,293.67
13	New York & New England,.....	844,811.32	1,055,097.47	1,718,708.62	1,640,664.47	2,065,719.44
14	New York, New Haven & Hartford,.....	4,004,555.68	1,638,740.99	4,034,692.68	721,407.29	4,244,955.34
15	New York, Providence & Boston,.....	791,076.51	599,102.91	860,721.43	1,508,880.42	
16	Norwich & Worcester,.....	442,613.67	445,149.63	415,903.67	416,627.00	407,884.33
17	Philadelphia, Reading & New Eng.,.....					860,473.20
18	Ridgefield & New York,.....	874.27				
19	Rockville,.....	19,505.15				
20	Shepaug, Litchfield & Northern,.....	19,982.55	5,060.47	9,977.50	8,841.43	5,965.67
21	Shore Line,.....					
22	South Manchester,.....	23,160.75	19,419.97	15,388.35	15,355.52	13,415.55
23	Stamford & New Canaan,.....					
24	Watertown & Waterbury,.....	21,190.00	22,520.00			
	Total,.....	\$7,911,092.12	\$6,056,696.98	\$9,792,522.43	\$5,708,503.80	\$7,673,405.19



## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	PERMANENT INVESTMENTS.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,.....	\$4,566,169.77	\$4,566,169.77	\$4,601,492.45	\$4,603,342.45	\$4,604,322.56
2	Central New England & Western,.....	.....	4,674,581.20	4,856,563.32	5,538,971.80	.....
3	Colchester,.....	50,000.00	50,000.00	50,000.00	50,000.00	50,000.00
4	Danbury & Norwalk,.....	1,499,242.72	1,399,242.72	1,449,242.72	1,449,242.72	1,449,242.72
5	Hartford & Connecticut Valley,.....	896,647.07	896,647.07	896,647.07	881,246.30	.....
6	Hartford & Connecticut Western,.....	3,384,235.47	3,486,714.90	3,432,387.48	3,432,387.48	3,432,387.48
7	Housatonic,.....	6,358,330.45	6,715,851.80	6,877,918.73	7,068,802.96	6,963,663.38
8	Meriden, Waterbury & Conn. River,.....	1,516,633.43	1,538,156.42	1,551,000.72	1,557,792.87	934,000.00
9	Naugatuck,.....	2,423,284.02	2,423,284.02	2,423,284.02	2,423,284.02	2,423,284.02
10	New Haven & Derby,.....	2,056,967.60	2,056,967.60	2,056,967.60	2,056,967.60	2,006,967.60
11	New Haven & Northampton,.....	6,603,017.24	6,603,017.24	6,603,017.24	6,603,017.24	6,603,017.24
12	New London Northern,.....	3,302,174.72	3,444,927.16	3,444,927.16	3,444,927.16	3,470,541.95
13	New York & New England,.....	38,505,463.94	38,843,517.24	39,857,142.66	40,108,915.03	40,337,272.19
14	New York, New Haven & Hartford,.....	23,432,783.05	24,666,424.38	27,750,791.95	29,671,524.18	46,887,794.36
15	New York, Providence & Boston,.....	6,899,606.90	7,575,579.53	7,702,801.03	8,424,756.04	.....
16	Norwich & Worcester,.....	4,025,180.61	4,061,539.24	4,054,172.96	4,082,247.93	4,288,228.40
17	Philadelphia, Reading & New Eng.,.....	.....	.....	.....	.....	17,079,724.63
18	Ridgefield & New York,.....	220,074.27	220,067.35	220,860.16	220,860.16	220,860.16
19	Rockville,.....	170,605.65	.....	.....	.....	.....
20	Shepaug, Litchfield & Northern,.....	627,099.64	633,225.70	641,419.11	650,737.90	650,737.90
21	Shore Line,.....	1,169,496.10	1,169,496.10	1,169,496.10	1,169,496.10	1,169,496.10
22	South Manchester,.....	98,715.92	98,915.63	100,911.49	106,622.67	106,622.67
23	Stamford & New Canaan,.....	99,877.46	99,877.46	.....	.....	.....
24	Watertown & Waterbury,.....	134,248.00	134,248.00	.....	.....	.....
Total,.....		\$107,959,854.03	\$115,294,378.21	\$119,741,043.97	\$123,545,142.61	\$142,678,163.36

## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	TOTAL GROSS EARNINGS.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,*	.....	.....	\$650,528.37	\$668,358.03	.....
2	Central New England & Western,.....	.....	.....	.....	.....	.....
3	Colchester,*	.....	.....	.....	.....	.....
4	Danbury & Norwalk,.....	.....	.....	.....	.....	*
5	Hartford & Connecticut Valley,*	.....	.....	.....	.....	.....
6	Hartford & Connecticut Western,.....	.....	.....	.....	.....	.....
7	Housatonic,.....	\$364,702.99	<i>a</i> \$461,260.76	1,538,412.26	1,588,334.11	*
8	Meriden, Waterbury & Conn. River, .	1,159,347.12	1,461,469.41	87,018.45	86,280.99	.....
9	Naugatuck,*	67,835.86	81,793.07	.....	.....	.....
10	New Haven & Derby,.....	.....	.....	.....	.....	.....
11	New Haven & Northampton,*	185,925.12	.....	.....	.....	*
12	New London Northern,.....	.....	608,272.15	599,205.80	658,104.96	\$698,055.32
13	New York & New England,.....	597,186.67	5,849,691.70	6,149,246.40	6,216,617.26	6,413,061.55
14	New York, New Haven & Hartford,...	5,497,398.73	10,749,167.54	11,323,617.15	11,913,701.08	18,113,474.38
15	New York, Providence & Boston,...	10,166,430.84	3,005,234.45	3,051,228.69	3,157,749.65	*
16	Norwich & Worcester,†	1,363,256.43	.....	.....	.....	.....
17	Phila., Reading & New England,.....	.....	.....	.....	.....	1,023,218.08
18	Ridgefield & New York,.....	.....	.....	.....	.....	.....
19	Shepaug, Litchfield & Northern,.....	67,707.03	63,746.00	63,336.32	65,614.64	69,474.16
20	Shore Line,*	.....	.....	.....	.....	.....
21	South Manchester,.....	17,087.64	18,186.87	19,177.81	19,024.90	19,932.05
Total,.....		\$19,486,878.34	\$22,298,821.95	\$23,461,771.25	\$24,369,785.62	\$26,337,215.54

\* Included in N. Y., N. H. &amp; H. R. R. Co.

*a* Includes 10 months for C. N. E. & W. R. R. Co.

† Included in N. Y. &amp; N. E. R. R. Co.

*b* Includes 10 months for M., W. & C. R. R. Co.

## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	TOTAL OPERATING EXPENSES.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line, *					
2	Central New England & Western, ..					
3	Colchester, *			\$532,511.97	\$600,682.56	
4	Danbury & Norwalk, ..					*
5	Hartford & Connecticut Valley, *					
6	Hartford & Connecticut Western, ..	\$263,944.23	<i>a</i> \$334,217.58			
7	Housatonic, ..	711,070.83	832,756.76	937,572.95	1,033,389.04	*
8	Meriden, Waterbury & Conn. River,	75,929.87	90,743.39	92,594.69	94,713.83	†
9	Naugatuck, *					*
10	New Haven & Derby, ..	112,609.86	†	†	†	
11	New Haven & Northampton, *					
12	New London Northern, ..	379,765.11	406,136.91	421,546.39	417,349.63	\$482,854.41
13	New York & New England, ..	3,660,447.42	3,782,157.47	4,133,504.59	4,574,750.88	64,512,288.52
14	New York, New Haven & Hartford, ..	7,089,939.74	7,379,774.49	7,938,901.66	8,273,010.69	12,405,934.27
15	New York, Providence & Boston, ..	940,625.49	1,950,995.00	1,977,932.79	2,031,022.46	*
16	Norwich & Worcester, †					
17	Phila., Reading & New England, ..					988,862.44
18	Ridgefield & New York, ..					
19	Shepaug, Litchfield & Northern, ..	45,951.03	43,623.79	55,981.56	59,060.46	66,135.29
20	Shore Line, *					
21	South Manchester, ..	14,393.89	13,383.96	11,386.37	13,331.02	17,892.30
	Total, ..	\$13,284,677.47	\$14,833,789.35	\$16,091,932.97	\$17,097,210.57	\$18,473,967.23

\* Included in N. Y., N. H. &amp; H. R. R. Co.

† Included in N. Y. &amp; N. E. R. R. Co.

*b* Includes 10 months for M., W. & C. R. R. Co.*a* Includes ten-months for the C. N. E. & W. R. R. Co.



## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	INCOME FROM PASSENGERS.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,*					
2	Central New England & Western,...			\$176,017.16	\$166,173.64	
3	Colchester,*					*
4	Danbury & Norwalk,...					
5	Hartford & Connecticut Valley,*					
6	Hartford & Connecticut Western,...	\$124,218.08	<i>a</i> \$151,833.09			*
7	Housatonic,	410,859.10	511,070.39	560,613.51	592,289.29	†
8	Meriden, Waterbury & Conn. River,	22,388.90	22,029.34	18,995.00	18,151.95	
9	Naugatuck,*					*
10	New Haven & Derby,	90,106.45	†	†		
11	New Haven & Northampton,*					
12	New London Northern,	218,882.15	225,129.91	219,035.22	242,880.41	\$255,435.80
13	New York & New England,...	1,917,313.11	2,004,654.52	2,082,413.55	2,168,173.91	<i>b</i> 2,120,224.03
14	New York, New Haven & Hartford,	5,147,379.53	5,398,010.84	5,780,305.56	6,023,750.83	8,563,340.44
15	New York, Providence & Boston, ...	731,493.30	1,395,022.23	1,502,087.04	1,510,469.04	*
16	Norwich & Worcester,†					
17	Philadelphia, Reading & New Eng.,					178,428.92
18	Ridgefield & New York,					
19	Shepaug, Litchfield & Northern, ...	16,331.14	17,318.18	19,418.18	20,199.90	24,400.36
20	Shore Line,*					
21	South Manchester,...	10,961.39	10,762.36	11,364.74	11,459.51	11,517.92
	Total),	\$8,690,033.15	\$9,735,830.86	\$10,370,249.96	\$10,753,548.48	\$11,153,347.47

\* Included in N. Y., N. H. &amp; H. R. R. Co.

† Included in N. Y. &amp; N. E. R. R. Co.

*b* Includes 10 months for M., W. & C. R. R. Co.*a* Includes ten months for the C. N. E. & W. R. R. Co.

## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	INCOME FROM FREIGHT.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,*			\$393,911.51	\$458,350.26	
2	Central New England & Western,					
3	Colchester,*					*
4	Danbury & Norwalk,					
5	Hartford & Connecticut Valley,*					
6	Hartford & Connecticut Western,	\$219,515.61	<i>a</i> \$259,675.79			
7	Housatonic,	655,455.75	812,941.23	852,054.74	872,681.97	*
8	Meriden, Waterbury & Conn. River,	42,657.76	55,741.66	63,745.37	63,848.26	†
9	Naugatuck,*					
10	New Haven & Derby,	88,739.69	†	†	†	*
11	New Haven & Northampton,*					
12	New London Northern,	344,050.34	346,156.77	355,686.85	390,805.65	\$415,559.81
13	New York & New England,	3,189,903.65	3,445,384.95	3,666,545.49	3,601,461.58	63,805,674.61
14	New York, New Haven & Hartford,	4,109,127.78	4,489,610.96	4,877,070.51	4,900,936.22	7,825,106.99
15	New York, Providence & Boston,	551,622.32	1,490,144.77	1,432,225.34	1,531,905.80	*
16	Norwich & Worcester,†					
17	Philadelphia, Reading & New Eng.,					818,845.26
18	Ridgefield & New York,					
19	Shepaug, Litchfield & Northern,	48,088.62	42,664.16	39,889.92	40,012.07	40,997.29
20	Shore Line,*					
21	South Manchester,	6,067.49	7,349.51	7,667.63	7,440.34	8,285.23
	Total,	\$9,255,269.01	\$10,949,669.80	\$11,388,797.36	\$11,867,442.15	\$12,914,469.19

\* Included in N. Y., N. H. &amp; H. R. R. Co.

† Included in N. Y. &amp; N. E. R. R. Co.

*a* Includes ten months for the C. N. E. & W. R. R. Co.*b* Includes 10 months for M., W. & C. R. R. Co.

## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	NUMBER OF PASSENGERS CARRIED.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,*					
2	Central New England & Western,				413,827	
3	Colchester,*			396,199		
4	Danbury & Norwalk,					*
5	Hartford & Connecticut Valley,*					
6	Hartford & Connecticut Western,					
7	Housatonic,	291,054	a 356,947			
8	Meriden, Waterbury & Conn. River,	1,063,376	1,303,416	1,344,197	1,422,417	*
9	Naugatuck,*	69,707	74,433	64,632	61,554	†
10	New Haven & Derby,	325,744	†	†	†	*
11	New Haven & Northampton,*					
12	New London Northern,	532,780	540,804	565,754	613,989	698,620
13	New York & New England,	7,381,179	7,637,290	8,212,400	8,759,010	b 9,124,510
14	New York, New Haven & Hartford,	12,088,662	13,148,140	14,030,868	14,658,905	23,187,894
15	New York, Providence & Boston,	2,076,791	5,523,931	6,286,856	6,500,351	*
16	Norwich & Worcester,†					
17	Phila., Reading & New England,					398,135
18	Ridgefield & New York,					
19	Shepang, Litchfield & Northern,	21,267	22,250	24,876	26,132	32,440
20	Shore Line,*					
21	South Manchester,	159,661	154,237	161,642	164,860	169,420
	Total,	24,010,221	28,771,448	31,087,344	32,621,045	33,611,019

\* Included in N. Y., N. H. &amp; H. R. R. Co.

† Included in N. Y. &amp; N. E. R. R. Co.

b Includes 10 months for M., W. &amp; C. R. R. Co.

a Includes 10 months for C. N. E. &amp; W. R. R. Co.



## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	TONS OF FREIGHT CARRIED.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,*					
2	Central New England & Western,...			522,074	655,391	
3	Colchester*					*
4	Danbury & Norwalk,...					
5	Hartford & Connecticut Valley*					
6	Hartford & Connecticut Western,...	239,441	a 305,721			
7	Housatonic,...	561,752	688,817	881,837	935,465	*
8	Meriden, Waterbury & Conn. River,...	61,875	108,672	130,921	133,578	†
9	Naugatuck,...					*
10	New Haven & Derby,...	115,941	†	†	†	
11	New Haven & Northampton,*					
12	New London Northern,...	377,996	430,708	400,598	555,879	634,142
13	New York & New England,...	2,705,332	2,973,813	3,299,876	3,272,110.68	b 3,549,011
14	New York, New Haven & Hartford,...	3,246,833	3,563,873	3,802,012	4,120,477	6,859,100
15	New York, Providence & Boston,...	543,860	1,761,012	1,926,958	2,114,961	*
16	Norwich & Worcester,†					
17	Philadelphia, Reading & New Eng.,...					1,012,116
18	Ridgefield & New York,...					
19	Shepaug, Litchfield & Northern,...	53,216	43,155	40,711	39,886	38,546
20	Shore Line,*					
21	South Manchester,...	20,136	28,426	27,864	24,963	28,825
	Total,...	7,926,332	9,904,197	11,032,851	11,852,710.68	12,121,740

\* Included in N. Y., N. H. &amp; H. R. R. Co.

a Includes 10 months for O. N. E. &amp; W. R. R. Co

† Included in N. Y. &amp; N. E. R. R. Co.

b Includes 10 months for M., W. &amp; C. R. R. Co.

† Included in Housatonic R. R. Co.

## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	AMOUNT PAID IN DIVIDENDS				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,.....	\$119,920.00	\$120,015.00	\$119,400.00	\$119,400.00	\$119,940.00
2	Central New England & Western,.....					
3	Colchester,.....					
4	Danbury & Norwalk,.....	30,000.00	30,000.00	30,000.00	30,000.00	30,000.00
5	Hartford & Connecticut Valley,.....	31,968.00	32,000.00	32,000.00	32,000.00	
6	Hartford & Connecticut Western,.....	193.50		53,404.00	53,662.00	53,845.00
7	Housatonic,.....					28,756.00
8	Meriden, Waterbury & Conn. River,.....					
9	Naugatuck,.....	200,000.00	200,000.00	200,000.00	200,000.00	200,000.00
10	New Haven & Derby,.....		8,940.00	8,940.00	8,940.00	13,410.00
11	New Haven & Northampton,.....	24,600.00	24,600.00	49,200.00	49,200.00	49,200.00
12	New London Northern,.....	105,000.00	105,000.00	105,000.00	108,750.00	120,000.00
13	New York & New England,.....	152,638.90	183,369.26	189,000.00	*243,775.00	
14	New York, New Haven & Hartford,.....	1,550,000.00	1,705,000.00	1,865,000.00	2,103,750.00	2,945,535.00
15	New York, Providence & Boston,.....	350,000.00	425,000.00	500,000.00	500,000.00	
16	Norwich & Worcester,.....	207,824.00	209,774.00	209,624.00	211,224.00	216,232.00
17	Phila., Reading & New England,.....					
18	Ridgefield & New York,.....					
19	Rockville,.....	2,400.00				
20	Shepaug, Litchfield & Northern,.....					
21	Shore Line,.....	72,500.00	72,500.00	72,500.00	72,500.00	80,000.00
22	South Manchester,.....					
23	Stamford & New Canaan,.....	4,000.00	4,000.00			
	Total,.....	\$2,851,044.40	\$3,120,198.26	\$3,434,608.00	\$3,733,741.00	\$3,856,918.00

\* Payment of Dividend No. 13, viz., \$123,275.00, on preferred stock of N. Y. & N. E. R. R., due May 1, 1892, was enjoined and consequently not paid. Amount paid in 1892 should have, therefore, been shown in the above table as \$115,500.00 instead of \$243,775.00, and total dividends paid for that year \$3,605,466.00, instead of \$3,733,741.00.

## COMPARATIVE STATEMENT FOR FIVE YEARS.

Number.	RAILROADS.	AMOUNT PAID FOR INTEREST.				
		1889.	1890.	1891.	1892.	1893.
1	Boston & New York Air Line,.....	\$26,750.00	\$26,750.00	\$26,750.00	\$26,750.00	\$26,750.00
2	Central New England & Western, ...	.....	125,000.00	125,000.00	725.12	.....
3	Colchester,.....	.....	.....	.....	.....	.....
4	Danbury & Norwalk,.....	41,500.00	41,500.00	32,500.00	37,500.00	33,500.00
5	Hartford & Connecticut Valley,.....	48.00	48.00	48.00	48.00	.....
6	Hartford & Connecticut Western,....	30,400.00	5,066.66	35,000.00	.....	35,000.00
7	Housatonic,.....	133,253.91	154,648.01	149,000.00	187,851.11	149,000.00
8	Meriden, Waterbury & Conn. River, ..	21,822.07	65,132.01	.....	59,449.36	19,166.67
9	Naugatuck,.....	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
10	New Haven & Derby,.....	51,465.00	91,114.05	91,114.05	91,114.05	88,114.05
11	New Haven & Northampton,.....	233,000.00	233,000.00	233,000.00	233,000.00	233,000.00
12	New London Northern,.....	86,108.83	84,963.34	79,725.00	80,929.88	68,120.00
13	New York & New England,.....	1,012,937.12	1,010,936.93	1,040,021.97	494,966.55	1,093,571.66
14	New York, New Haven & Hartford, ..	171,240.90	149,637.78	80,000.00	118,213.83	262,884.75
15	New York, Providence & Boston,....	86,337.21	48,378.97	92,392.44	101,557.18	.....
16	Norwich & Worcester,.....	24,000.00	24,000.00	24,000.00	24,000.00	24,380.00
17	Phila., Reading & New England,.....	.....	.....	.....	.....	244,141.58
18	Ridgefield & New York,.....	.....	.....	.....	.....	.....
19	Rockville,.....	1,014.00	.....	.....	.....	.....
20	Shepaug, Litchfield & Northern,....	871.83	361.83	43.50	.....	.....
21	Shore Line,.....	9,056.75	9,000.00	9,037.46	9,022.77	9,073.75
21	South Manchester,.....	.....	.....	.....	.....	.....
Total,.....		\$1,935,805.62	\$2,675,489.58	\$2,023,632.42	\$1,391,127.85	\$2,292,702.46



## COMPARATIVE STATEMENT FOR FIVE YEARS.

RAILROADS.		ACCIDENTS TO PASSENGERS IN CONNECTICUT.									
		1889.		1890.		1891.		1892.		1893.	
		Fatal.	Not Fatal.	Fatal.	Not Fatal.	Fatal.	Not Fatal.	Fatal.	Not Fatal.	Fatal.	Not Fatal.
1	Boston & New York Air Line,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	Central New England & Western,	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
3	Colchester,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Danbury & Norwalk,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Hartford & Connecticut Valley,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Hartford & Connecticut Western,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	Housatonic,	1	.....	1	4	.....	9	1	.....	.....	.....
8	Meriden, Waterbury & Conn. River,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	Naugatuck,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	New Haven & Derby,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	New Haven & Northampton,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	New London Northern,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
13	New York & New England,	1	6	5	10	1	14	.....	2	.....	.....
14	New York, New Haven & Hartford,	4	54	.....	15	2	29	1	5	4	10
15	New York, Providence & Boston,	.....	.....	.....	1	.....	1	.....	.....	.....	.....
16	Norwich & Worcester,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Philadelphia, Reading & New Eng.,	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
18	Ridgefield & New York,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Shepaug, Litchfield & Northern,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Shore Line,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	South Manchester,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,		6	60	6	30	3	56	2	21	6	13

Number.

## SUMMARY OF THE FOREGOING TABLES.

	1892	1893	INCREASE.	DECREASE.
Capital stock issued, . . . . .	\$75,959,330.88	\$84,997,130.88	\$9,037,800.00	
Capital stock held in Connecticut, . . . . .	24,775,200.00	22,104,960.00		\$2,670,240.00
Funded debt, . . . . .	39,070,735.88	44,589,423.38	5,518,687.50	
Current liabilities, . . . . .	5,708,503.80	7,673,405.19	1,964,901.39	
Total stock and debt, . . . . .	120,738,570.56	137,259,959.45	16,521,388.89	
Permanent investments, . . . . .	123,545,142.61	142,678,163.36	19,133,020.75	
Gross earnings, . . . . .	24,369,785.62	26,337,215.54	1,967,429.92	
Operating expenses, . . . . .	17,097,210.57	18,473,967.23	1,376,756.66	
Net earnings, . . . . .	7,303,317.02	7,863,248.31	559,931.29	
Paid for taxes, . . . . .	1,173,167.48	1,180,193.29	8,025.81	
Paid for interest, . . . . .	1,891,127.85	2,292,702.46	901,574.61	
Paid for dividends, . . . . .	3,733,741.00	3,856,918.00	123,177.00	
Income from passengers, . . . . .	10,753,548.48	11,153,347.47	399,798.99	
Income from freight, . . . . .	11,867,442.15	12,914,469.19	1,114,133.68	
Paid for maintenance of way and structures, . . . . .	2,813,982.61	3,044,600.40	230,617.79	
Paid for maintenance of equipment, . . . . .	2,382,596.21	2,488,820.11	106,223.90	
	Miles.	Miles.	Miles.	Miles.
Total length of main line and branches, . . . . .	1,501.93	1,634.79	132.86	
Total of same in Connecticut, . . . . .	1,006.16	1,013.22	7.06	
Total length of sidings, . . . . .	550.79	647.40	96.61	
Total of same in Connecticut, . . . . .	352.87	358.89	6.02	
Total second, third, and fourth tracks, . . . . .	393.94	429.44	35.50	
Total of same in Connecticut, . . . . .	246.56	245.21	1.35	
Run by passenger trains, . . . . .	8,948,358	9,195,095	246,737	
Run by freight trains, . . . . .	6,614,325	7,426,738	812,413	
Total run by all trains, . . . . .	20,476,673	21,625,551	1,148,878	
Other trains, . . . . .		5,003,718		
Total passenger mileage, . . . . .	582,326,772	602,542,966	20,216,194	
Total freight mileage, . . . . .	791,620,918	880,966,840	89,345,922	
Number of passengers carried, . . . . .	32,621,045	33,611,019	989,974	
Number of tons of freight carried, . . . . .	11,852,710	12,121,740	269,030	
Highway grade crossings in Connecticut, . . . . .	1,140	1,114		27
Number of men employed, . . . . .	17,469	20,415	2,926	
Number of engines, . . . . .	671	694	23	
Number of cars, . . . . .	16,094	15,787		307
Passengers injured — fatal, . . . . .	2	6	4	
Passengers injured — not fatal, . . . . .	21	13		8
Employees injured — fatal, . . . . .	59	64	5	
Employees injured — not fatal, . . . . .	379	445	66	
Trespassers injured — fatal, . . . . .	124	85		39
Trespassers injured — not fatal, . . . . .	83	78		5
Others injured — fatal, . . . . .		18		
Others injured — not fatal, . . . . .		15		
Injured at grade crossings — fatal, . . . . .	24	16		8
Injured at grade crossings — not fatal, . . . . .	24	15		9

*Names of Railroad Commissioners, Commencement of Term, and Residence.*

Zaccheus W. Bissell,*	Sharon,	1853	
Moses B. Harvey,*	Stafford,	1853	
John Stewart,*	Chatham,	1853	resigned.
James N. Palmer,*	New Haven,	1854	to fill vacancy.
John Gould,*	Fairfield,	1854	
John S. Jewett,*	Sharon,	1855	
Henry Hammond,	Killingly,	1856	
Patten Fitch,	Bolton,	1857	
John Gould,	Fairfield,	1858	
George D. Wadhams,*	Torrington,	1859	
Henry Hammond,	Killingly,	1860	
Joseph W. Dudley,*	Madison,	1861	
John J. Jacques,*	Waterbury,	1862	to fill vacancy.
Abel Scranton,*	Madison,	1862	
Samuel Fitch,	Stafford,	1863	
Abel Scranton,*	Madison,	1864	
William A. Cummings,*	Darien,	1865	
Samuel Fitch,	Stafford,	1866	
Albert Austin,	Suffield,	1867	
James Pike,*	Sterling,	1868	
Charles H. Denison,	Stonington,	1869	resigned.
Simeon Gallup,*	Groton,	1870	to fill vacancy.
John I. Hutchinson,	Essex,	1870	
James Pike,*	Sterling,	1871	resigned.
Simeon Gallup,*	Groton,	1872	to fill vacancy.
Andrew Northrop,*	Brookfield,	1872	
Charles W. Scott,*	Sprague,	1873	to fill vacancy.
George W. Arnold,*	Haddam,	1873	
George M. Woodruff,	Litchfield,	1874	
Minott A. Osborn,*	New Haven,	1875	
George W. Arnold,*	Haddam,	1876	
George M. Woodruff,	Litchfield,	1877	
John W. Bacon,	Danbury,	1877	to fill vacancy.
John W. Bacon,	Danbury,	1878	
Francis A. Walker,	New Haven,	1879	resigned Nov.
William H. Hayward,	Colchester,	1880	to fill vacancy.
George M. Woodruff,	Litchfield,	1880	
John W. Bacon,	Danbury,	1881	
William H. Hayward,	Colchester,	1882	
George M. Woodruff,	Litchfield,	1883	
John W. Bacon,	Danbury,	1884	
William H. Hayward,	Colchester,	1885	
George M. Woodruff,	Litchfield,	1886	
William O. Seymour,	Ridgefield,	1887	
William H. Hayward,†	Colchester,	1889	
George M. Woodruff,†	Litchfield,	1889	
William O. Seymour,†	Ridgefield,	1891	
Alex. C. Robertson,†	Montville,	1893	

Clerk,.....HENRY F. BILLINGS,

HARTFORD, CONN.

OFFICE, Nos. 41 and 43 State Capitol, Hartford.

\* Deceased.

† Appointed for four years.



# CONTENTS OF TABLES.

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## RAILROADS.

- 1 Name of roads and branches.
- 2 Date when chartered.
- 3     "     "     opened for use.
- 4 Location of road.
- 5 Length of main line and branches.
- 6     "     "     double track.
- 7     "     "     sidings.
- 8     "     "     road, single track, miles.

## CAPITAL STOCK.

- 9 Total amount authorized.
- 10     "     "     issued for cash.
- 11     "     "     "     bonds.
- 12     "     "     "     stock of other corporations.
- 13     "     "     "     undivided earnings.
- 14     "     "     "     increased valuation.
- 15     "     "     "     otherwise.
- 16     "     "     "     "
- 17     "     "     "     per last report.
- 18     "     "     "     "     mile of road.
- 19     "     "     held in Connecticut.
- 20     "     "     "     "     per last report.
- 21     "     number of stockholders in Connecticut.
- 22     "     "     "     "     "     "     per last report.

## DEBT.

- 23 Amount of funded debt.
- 24 Current liabilities.
- 25 Total debt.
- 26     "     per last report.
- 27 Funded debt per mile of road.
- 28 Total stock and debt.

## PROPERTY ACCOUNT.

- 29 Cost of road.
- 30     "     equipment.
- 31 Bonds and stocks.
- 32 Other permanent investments.
- 33 Cash and current assets.

- 34 Other assets.
- 35 Total.
- 36 Cost of road per mile.

## GROSS EARNINGS.

- 37 Total.
- 38 " per last report.
- 39 " " mile of road operated.
- 40 " " " run.

## NET EARNINGS.

- 41 Total.
- 42 " per last report.
- 43 " " mile of road operated.
- 44 " " " run.

## DIVIDENDS.

- 45 Total amount paid.
- 46 " " " per last report.
- 47 Capital stock on which dividends were paid.
- 48 " " " no " " "
- 49 Paid for taxes.
- 50 " interest.
- 51 " insurance.

## OPERATING EXPENSES.

- 52 Maintenance of way and structure.
- 53 " " equipment.
- 54 Conducting transportation.
- 55 General expenses.
- 56 Total.
- 57 " miles operated.
- 58 " per mile of road operated.
- 59 " " " run.

## MAINTENANCE OF WAYS AND STRUCTURES.

- 60 Repairs of road-bed and track.
- 61 " " bridges and culverts.
- 62 " " buildings.
- 63 Miscellaneous.
- 64 Total.
- 65 Per mile of road operated.
- 66 " run.

## MAINTENANCE OF EQUIPMENT.

- 67 Repairs and renewals of locomotives.
- 68 " " " passenger cars.
- 69 " " " freight cars.

- 70 Shop machinery, tools, etc.
- 71 Other expenses.
- 72 Total.
- 73 Per mile of road operated.
- 74 " run.

## EXPENSES OF TRANSPORTATION.

- 75 Wages of trainmen.
- 76 " switchmen, flagmen, and watchmen.
- 77 " station agents, clerks, and laborers.
- 78 Fuel for locomotives.
- 79 Injuries to persons.
- 80 Damage or loss of property.
- 81 Other expenses.
- 82 Total.

## PASSENGER TRAFFIC.

- 83 Number of passengers carried.
- 84 " " per last report.
- 85 " " one mile.
- 86 Average distance carried.
- 87 Total passenger revenue.
- 88 Average amount received from each passenger.
- 89 Average per passenger per mile run.
- 90 Estimated cost of carrying each passenger one mile.
- 91 Average per mile of road.
- 92 Earnings per train mile.

## FREIGHT TRAFFIC.

- 93 Tons of freight carried.
- 94 " " per last report.
- 95 " " one mile.
- 96 Average distance haul of one ton.
- 97 Total freight revenue.
- 98 Average amount received for each ton of freight.
- 99 Average per ton per mile run.
- 100 Estimated cost of carrying one ton one mile.
- 101 Average per ton per mile of road.
- 102 Earnings per train mile.

## FUEL FOR LOCOMOTIVES.

- 103 Number of tons of coal.
- 104 Average cost per ton.
- 105 Number of cords of wood.
- 106 Average cost per cord.
- 107 Total tons of fuel consumed.
- 108 Total cost.
- 109 Total miles run.
- 110 Average pounds consumed per mile run.



## MILEAGE.

- 111 Miles run by passenger trains.  
 112       "       freight       "  
 113       "       other       "  
 114 Total.  
 115       "       per last report.

## EMPLOYES.

- 116 Number including officers.  
 117       "       "       "       per last report.

## EQUIPMENT.

- 118 Number of locomotives.  
 119       "       "       with train brake.  
 120       "       cars in passenger service.  
 121       "       freight and other cars.  
 122 Total.  
 123       "       per last report.  
 124 Passenger cars with train brake.  
 125 Freight       "       "       "  
 126 Passenger cars with automatic couplers.  
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- 128 On main line and branches.  
 129 In Connecticut.  
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- 131 Miles of steel.  
 132       "       iron.  
 133 Number of ties laid during year.

## HIGHWAY CROSSINGS IN CONNECTICUT.

- 134 At grade.  
 135       "       per last report.

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- 136 Gross earnings to capital and debt.  
 137 Net       "       "       "  
 138       "       "       permanent investments.  
 139       "       "       gross earnings.  
 140 Operating expenses to gross earnings.  
 141 Passenger earnings       "  
 142 Freight       "       "

## ACCIDENTS IN CONNECTICUT.

143	Passengers.		
144	Employes.		
145	Trespassers.		
146	Others.		
147	Total.		
148	Fatal.		
149	Not fatal.		
150	At highway crossings — fatal.	.	
151	“	“	— not fatal.
152	Employes injured by falling from engine or car.		
153	“	“	“ coupling or uncoupling cars.
154	“	“	“ overhead obstruction.
155	“	“	“ other causes.
156	“	“	fatally.
157	“	“	not fatally.
158	Passengers	“	fatally.
159	“	“	not fatally.
160	Trespassers	“	fatally.
161	“	“	not fatally.
162	Others	“	fatally.
163	“	“	not fatally.





# RAILROAD RETURNS.



# BOSTON & NEW YORK AIR LINE R. R. CO.

## History.

Name of common carrier making this report? Boston & New York Air Line Railroad Company.

Date of organization? June 8, 1875.

Under laws of what Government, State, or Territory organized? Under the laws of State of Connecticut. (Special Laws of Conn., vol. 7, p. 885; Conn. Special Acts, 1875, p. 178; Special Laws of Conn., vol. 8, pp. 17, 228; Conn. Special Acts, 1879, p. 137; Special Laws of Conn., vol. 9, p. 1009.)

If a reorganized company, give name of original corporation, and refer to laws under which it was organized. Originally The New Haven, Middletown & Willimantic Railroad Company. (Special Laws of Conn., vol. 6, pp. 286, 329, 462; U. S. Statutes at large, vol. 15, p. 272; Special Laws of Conn., vol. 6, pp. 577, 613, 652, 794, 807; Special Laws of Conn., vol. 7, pp. 2, 31, 145, 273; Conn. Special Acts, 1872, p. 190; Special Laws of Conn., vol. 7, pp. 543, 554, 555; Conn. Public Acts, 1874, chap. LXIV; Special Laws of Conn., vol. 7, p. 767; Conn. Special Acts, 1874, p. 271; Gen. Statutes of Conn., sec. 3820.)

What carrier operates the road of this company? New York, New Haven & Hartford Railroad Company.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
HENRY B. HAMMOND,	45 Broadway, N. Y.,	June 6, 1894.
T. L. WATSON,	Bridgeport, Conn.	" "
S. F. LOOMER,	Willimantic, "	" "
E. H. TROWBRIDGE,	New Haven, "	" "
CHARLES P. CLARK,	" "	" "
BENJAMIN DOUGLAS,	Middletown, "	" "
LUCIUS TUTTLE,	New Haven, "	" "
HENRY C. ROBINSON,	Hartford, "	" "
LEVERETT BRAINARD,	" "	" "
WM. L. SQUIRE,	New Haven, "	" "
O. VINCENT COFFIN,	Middletown, "	" "

Total number of stockholders at date of last election. 401 holders preferred stock; 234 holders common stock; total, 635.

Date of last meeting of stockholders for election of directors. June 6, 1893 (2d Tuesday in June).

Post-office address of general office. President, 45 Broadway, New York; Vice-President and Treasurer, New Haven, Conn.

Post-office address of operating office. New Haven, Conn.



**Officers.**

Title.	Name.	Location of Office.
President,	HENRY B. HAMMOND,	45 Broadway, New York.
Vice-President,	LUCIUS TUTTLE,	New Haven, Conn.
Secretary,	WM. E. BARNETT,	" "
Treasurer,	WM. L. SQUIRE,	" "
Division Superintendent,	A. S. OSTRANDER,	" "

**Property Leased, or Otherwise Assigned for Operation.**

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account (p. 156):

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Boston & New York Air Line R. R. Co.	New Haven, Junction N. Y., N. H. & H. R. R.	Willimantic.	New York, New Haven & Hartford R. R. Co.	Lease.	51.50

**Contract existing between this Road and the Company by which it is Operated.**

The Boston & New York Air Line Railroad was leased to the New York, New Haven & Hartford Railroad Company for 99 years from October 1, 1882, at an annual rental of \$120,000 and interest on its bonds and the bonds of the Colchester Railroad Company.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	10,000	\$100.00	\$1,000,000	\$851,000.00	None.	.....
Scrip,	.....	.....	.....	14,140.88	.....	.....
Preferred,	30,000	100.00	3,000,000	2,998,500.00	4% as per lease.	\$119,940
Total,	40,000	.....	\$4,000,000	\$3,863,640.88	.....	.....

**Capital Stock.—Continued.**

Manner of Payment for Capital Stock.	Total number of Shares Issued.	Total Cash Realized.
Preferred Stock issued for conversion of First Mortgage Bonds of New Haven, Middletown & Willimantic Railroad Company, . . . . .	29,985	\$2,998,500.00
Common Stock issued for redeemed and unpaid coupons converted and in satisfaction of legal and equitable claims against New Haven, Middletown & Willimantic Railroad Company, . . . . .	8,510	851,000.00
Scrip, . . . . .	.....	14,140.88
<b>Total, . . . . .</b>	<b>38,495</b>	<b>\$3,863,640.88</b>

REMARKS.— Preferred stock issued for surrender of First Mortgage Bonds of New Haven, Middletown & Willimantic Railroad Company.

Total common stock, including scrip, \$865,130.88.

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
First Mortgage,	Aug., 1880	Aug., 1905	\$500,000.00	\$500,000.00	\$500,000.00	\$500,000.00

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
5 per cent.	February 1 and August 1.	\$25,000.00	\$25,000.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p.155),	\$500,000.00	\$500,000.00	\$25,000.00	\$25,000.00

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Cash, . . . . \$1,262.53	Cash Assets, . . . \$1,262.53

**Recapitulation.**

For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 154),	\$3,863,630.88	\$3,863,630.88	51.50	\$75,021.96
Bonds (p. 155), . .	500,000.00	500,000.00	51.50	9,708.73
Total, . . . .	\$4,363,630.88	\$4,363,630.88	51.50	\$84,730.69

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Construction, . . . . .	\$4,436,237.83	\$4,436,237.83	\$86,140.54
Equipment, . . . . .	129,931.94	129,931.94	2,522.95
Total (all in Connecticut), . . .	\$4,566,169.77	\$4,566,169.77	\$88,663.49

**Income Account.**

Income from Lease of Road, . . . . .	\$146,690.00
Dividends on Stocks owned (p. 157), . . . .	1,298.25
Interest on Bonds owned (p. 158), . . . .	717.50
Miscellaneous Income, less Expenses (p. 158), . . . .	1,000.67
Total Income, . . . . .	\$149,706.42
Deductions from Income:	
Salaries and Maintenance of Organization, . . . .	\$633.97
Interest on Funded Debt accrued (p. 155), . . . .	25,000.00
Interest on Interest-bearing Current Liabilities, . . . .	
Accrued, not otherwise provided for, . . . .	1,750.00
Other Deductions, . . . . .	2,156.00
Total Deductions from Income, . . . . .	29,539.97
Net Income, . . . . .	\$120,166.45



**Income Account.—Continued.**

Dividends, 4 per cent., Preferred Stock, . . .	\$119,940.00
Surplus from Year ending June 30, 1893, . . .	\$226.45
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report], . . . . .	228,855.98
	\$229,082.43
Additions for Year, . . . . .	980.11
Surplus on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .	\$230,062.54

**Stocks Owned.**

Name.	Total Par Value.	Rate.	Income or Dividend Received.	Valuation.
455 shares Pennsylvania Railroad Stock, \$50 per share, . . .	\$22,750.00	5½%	\$1,163.25	\$22,750.00
Pennsylvania Railroad Company Scrip at par, . . . . .	423.00	.....	.....	423.00
27 shares C., B. & Q. Railroad Stock, . . . . .	2,700.00	5%	135.00	2,430.00
Scrip C., B. & Q. Railroad for 2 shares, . . . . .	200.00	.....	.....	180.00
Total, . . . . .	\$26,073.00	.....	\$1,298.25	\$25,783.00

**Bonds Owned.**

Name.	Total Par Value.	Rate.	Income or Dividend Received.	Valuation.
Town of Spencer, Ind., . . .	\$3,000.00	5½%	*\$105.00 }	\$2,859.79
Town of North Muskegon, Mich.,	5,000.00	5%	†78.75 }	
" " " " " "	4,000.00	6%	250.00 }	8,510.00
C., B. & Q. R. R. Co., . . .	1,000.00	5%	240.00 }	1,000.00
" " " " " " Scrip, . . .	200.00	7%	43.75 }	
Total, . . . . .	\$13,200.00	.....	\$717.50	\$12,369.79

\* On \$4,000.

† On \$3,000.

**Miscellaneous Income.**

Item.	Gross Income.
Received for one Bond, Town of Spencer, . . . . .	\$1,000.00
Received for one right to subscribe for new C., B. & Q. Stock and Bonds, . . . . .	.67
Total, . . . . .	\$1,000.67

**Rentals Paid.**

Rents paid for lease of road:

Name of Road.	Interest on Bonds Guaranteed.
Colchester Railroad, . . . . .	\$1,750.00

**Comparative General Balance Sheet.**

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$4,436,237.83	Cost of Road (p. 156), . . . . .	\$4,436,237.83	.....	.....
129,931.94	Cost of Equipment (p. 156), . . . . .	129,931.94	.....	.....
23,802.89	Stocks owned (p. 157), . . . . .	25,783.00	\$1,980.11	.....
13,369.79	Bonds owned (p. 157), . . . . .	12,369.79	.....	\$1,000.00
1,036.08	Cash and Current Assets (p. 156), . . . . .	1,262.53	226.45	.....
\$4,604,378.53	Grand Total, . . . . .	\$4,605,585.09	\$2,206.56	\$1,000.00

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.
\$3,862,730.88	Capital Stock (p. 154), . . . . .	\$3,863,640.88	\$910.00
500,000.00	Funded Debt (p. 155), . . . . .	500,000.00	.....
1,500.00	Bonds of N.H., M. & W. R. R. Co. out- standing convertible in pref. stock,	1,500.00	.....
*11,291.67	Accrued Interest on Funded Debt not yet payable, . . . . .	*11,291.67	.....
228,855.98	Profit and Loss, . . . . .	230,062.54	1,206.56
4,604,378.53	Grand Total, . . . . .	\$4,606,495.09	\$2,116.56

\* \$10,416.67 interest accrued on A. L. Bonds; \$875.00 on Colchester Bonds.

## Security for Funded Debt (p. 155).

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From—	To—	Miles.	
First Mortgage,	New Haven	Willimantic.	51.50	\$9,708.74

## Mileage.

Mileage owned by road making this report:

State or Territory.	Line Represented by Capital Stock. Main Line.	Total Mileage, Excluding Trackage Rights.	Steel Rails.
Connecticut, . . . . .	51.50	51.50	51.50

## Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
			Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
From—	To—	Miles.			
New Haven Junc.	Willimantic.	51.50	85	20.11	31.39

## PROFILE.

Length of Level Line.  Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate length of Descending Grades. Miles.
4.59	19	1,178	26.61	16	956	20.80



**Characteristics of Road.**—*Continued.***BRIDGES, TRESTLES, TUNNELS, ETC.**

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, .	12	181	..	8	..	24	..
Iron, . .	23	5,336	9	18	3	1,380	9
Wooden, .	5	82	..	12	..	34	..
Total, .	40	5,599	9	..	..	..	..
Trestles, .	1	6,694	..	..	..	..	..

**HIGHWAY CROSSINGS.**

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings:			
Bridges, . . . . .	16	14	..

**GAUGE OF TRACK**—4 feet, 8½ inches; 51.50 miles.

**Telegraph.**

Owned by another company, but located on property of road making this report:

Miles of Line.	Name of Owner.	Name of Operating Company.
51.50	Western Union Telegraph Co.	Western Union Telegraph Co.

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, Charles P. Clark, Vice-President, and William L. Squire, Treasurer, of the Boston & New York Air Line Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

CHARLES P. CLARK,  
*Vice-President.*

WILLIAM L. SQUIRE,  
*Treasurer.*

Subscribed and sworn to before me this 21st day of September, 1893.

A. S. MAY,  
*Notary Public.*

# COLCHESTER RAILWAY COMPANY.

## History.

Name of common carrier making this report? Colchester Railway Company.

Date of organization? 1876.

Under laws of what Government, State, or Territory organized? State of Connecticut.

If a consolidated company, name the constituent companies. The Colchester Railway was leased in 1877 to the Boston & New York Air Line Railroad Company for nine hundred and ninety nine (999) years, without any consideration except it was to operate the road and pay the interest on the bonds of the lessor.

What carrier operates the road of this company? The New York, New Haven & Hartford Railroad Company.

## Organization.

Names of Directors.	Post-office Address.
ERASTUS S. DAY,	Colchester, Conn.
WILLIAM S. CURTIS,	" "
LEANDER CHAPMAN,	" "
GEORGE G. STANDISH,	Danbury, "

Total number of stockholders at date of last election? One.

Post-office address of general office? Colchester, Conn.

## Officers.

Title.	Name.	Location of Office.
President,	ERASTUS S. DAY,	Colchester, Conn.

## Property Leased, or Otherwise Assigned for Operation.

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account:

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Colchester Railway Co.,	Colchester,	Turnerville,	N. Y., N. H. & H. R. R. Co.	Lease for 999 years.	3.59

Leased in 1877 to Boston & New York Air Line Railroad Company for nine hundred and ninety-nine years, the Boston & New York Air Line Company to operate the road and pay interest on bonds. The road is now operated by the New York, New Haven & Hartford Railroad Company, lessees of the Boston & New York Air Line Railroad Company.



**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Common, . . .	500	\$100.00	\$50,000.00	\$25,000.00

Manner of Payment for Capital Stock.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash: Common, . . . . .	250	\$25,000.00

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
1st Mortgage,	1877	1907	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
7 per cent.	January and July, . . . .	\$1,750.00	\$1,750.00*

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p. 163),	\$25,000.00	\$25,000.00	\$1,750.00	\$1,750.00*

\* Interest paid by Lessee.

**Recapitulation.**

For mileage owned by road making this report.

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 163),	\$25,000.00	\$25,000.00	3.59	\$6,963.79
Bonds (p. 163), . . .	25,000.00	25,000.00	3.59	6,963.78
Total, . . . . .	\$50,000.00	\$50,000.00	3.59	\$13,927.57

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Total Construction, .	\$50,000.00	\$50,000.00	\$13,927.57

**Comparative General Balance Sheet.**

Total, June 30, 1892.	Assets.	Total, June 30, 1893.
\$50,000.00	Cost of Road (p. 164), . . . . .	\$50,000.00

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.
\$25,000.00	Capital Stock (p. 163), . . . . .	\$25,000.00
25,000.00	Funded Debt (p. 163), . . . . .	25,000.00
\$50,000.00	Grand Total, . . . . .	\$50,000.00

## Security for Funded Debt.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From — ]	To —	Miles.	
First Mortgage,	Colchester	Turnerville.	3.59	\$6,963.78

## Mileage.

Mileage of road making this report:

Line in Use.	Line Represented by Capital Stock. Main Line.
Miles of single track, . . . . .	3.59
Miles of yard track and sidings, . . . . .	4,908 feet.

Mileage owned by road making this report:

Line in Use.	Line Represented by Capital Stock. Main Line.	Steel Rails.
Total mileage owned (single track), . . . . .	3.59	3.59

## Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
From —	To —	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Colchester	Turnerville.	3.59	8	1.02	2.57

## PROFILE.

Length of Level Line. Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
.74	4	44	.95	5	85	1.90

GAUGE OF TRACK — 4 feet, 8½ inches; 3.59 miles.



**Telegraph.**

Owned by another company, but located on property of road making this report:

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
3.59	3.59	Western Union.	Western Union.

**Explanatory Remarks.**

Former secretary and treasurer both dead, and places have not been filled.

**Oath.**

STATE OF CONNECTICUT, }  
COUNTY OF NEW LONDON, } ss.

COLCHESTER, July 15, 1893.

I, the undersigned, Erastus S. Day, President of the Colchester Railway Company, on my oath do say that the foregoing return has been prepared; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

ERASTUS S. DAY,

*President.*

Subscribed and sworn to before me this 15th day of July, 1893.

J. N. ADAMS,

*Justice of the Peace.*

# DANBURY & NORWALK RAILROAD CO:

Name of common carrier making this report? Danbury & Norwalk Railroad Company.

Date of organization? May, 1849.

Under laws of what Government, State, or Territory organized? State of Connecticut.

What carrier operates the road of this Company? New York, New Haven & Hartford Railroad Company.

## Organization.

Name of Directors.	Post-office Address.	Expiration of Term.
F. ST. JOHN LOCKWOOD,	Norwalk, Conn.	October, 1893.
EBEN HILL,	South Norwalk, Conn.	" "
CHARLES L. ROCKWELL,	Meriden, Conn.	" "
EDMUND TWEEDY,	Danbury, "	" "
CHARLES H. MERRITT,	" "	" "
CHARLES P. CLARK,	New Haven, Conn.	" "
E. H. TROWBRIDGE,	" "	" "
BENJAMIN R. ENGLISH,	" "	" "
GEORGE J. BRUSH,	" "	" "
W. B. E. LOCKWOOD,	Norwalk, "	" "
STEPHEN H. SMITH,	" "	" "
JOHN P. TREADWELL,	" "	" "
LEWIS C. GREEN,	" "	" "
JAMES T. HUBBELL,	" "	" "

Total number of stockholders at date of last election? 222.

Date of last meeting of stockholders for election of directors? October 27, 1893.

Post-office address of general office? New Haven, Conn.

## Officers.

President,	F. ST. JOHN LOCKWOOD,	Norwalk, Conn.
Vice-President,	EBEN HILL,	" "
Secretary,	C. E. ROBINSON,	New Haven, Conn.
Treasurer,	C. E. ROBINSON,	" "

**Property Leased, or Otherwise Assigned for Operation.**

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account — (p. 170):

NAME.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Danbury & Norwalk,	Danbury, Ct.,	Wilson Pt., Ct.,	N. Y., N. H. & H.	Lease.	26.18
Ridgefield Branch,	Branchville, “	Ridgefield, “	“ “	“	3.97
Bethel Branch,	Bethel, “	Hawleyville, “	“ “	“	5.95
Total Mileage, . . . . .					36.20

**Contract Existing between this Road and the Company by which it is Operated.**

All the railroad and property of the Company leased to the New York, New Haven & Hartford Railroad Company for ninety-nine years from July 1, 1892.

Rental, 5 per cent. dividends on capital stock, and interest on funded debt.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	20,000	\$50.00	\$1,000,000.00	\$600,000.00	5 per ct.	\$30,000.00

Manner of Payment for Capital Stock.	Total Cash Realized.
Issued for Cash: Common, . . . . .	\$338,416.25
Issued for undivided earnings, . . . . .	101,583.75
Issued for increased value of road and equipment, . . . . .	160,000.00
Total, . . . . .	\$600,000.00

REMARKS.—No data to show number of shares issued under each item.



**Funded Debt.**

Class of Bond or Obligation.	Time.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.
	Date of Issue.	When Due.			
Consolidated Mortgage,	{ 1880 1890 1892	{ 1920 1920 1920	{ \$500,000.00	{ \$100,000 200,000 200,000	{ \$100,000.00 200,000.00 200,000.00
General Mortgage,	{ 1885	{ 1925	{ 150,000.00	{ 150,000	{ 150,000.00
Grand Total, . . .	....	....	\$650,000.00	\$650,000	\$650,000.00

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
6 per cent.	January and July.	\$6,000.00	\$6,000.00
5 per cent.	January and July.	10,000.00	10,000.00
5 per cent.	January and July.	10,000.00	10,000.00
5 per cent.	April and October.	7,500.00	7,500.00
Total,	.....	\$33,500.00	\$33,500.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mtge. Bds. (p. 169),	\$650,000.00	\$650,000.00	\$33,500.00	\$33,500.00

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Stock N. E. Terminal Co., \$50,000.00	Loans and Bills Payable, \$50,000.00

**Recapitulation.**

For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 168),	\$600,000.00	\$600,000.00	36.20	\$16,574.58
Bonds (p. 169),	650,000.00	650,000.00	36.20	17,955.80
Total, . . . .	\$1,250,000.00	\$1,250,000.00	36.20	\$34,530.38

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Construction, . . . .	\$1,170,270.83	\$1,170,270.83	\$32,327.92
Equipment, . . . .	228,971.89	228,971.89	6,325.19
Total, . . . .	\$1,399,242.72	\$1,399,242.72	\$38,653.11

REMARKS.—We have no data from which to distribute above accounts.

**Income Account.**

Income from Lease of Road, . . . . .	\$63,500.00	
Total Income, . . . . .		\$63,500.00
Deductions from Income:		
Interest on Funded Debt accrued (p. 169), . . . .	\$33,500.00	
Total Deductions from Income, . . . .		33,500.00
Net Income, . . . . .		\$30,000.00
Dividends, 5 per cent., Common Stock, . . . .		30,000.00

**Stocks Owned.**

Name.	Total Par Value.
New England Terminal Company, . . . . .	\$50,000.00

**Comparative General Balance Sheet.**

Total, June 30, 1892.	Assets.	Total, June 30, 1893.
\$1,170,270.83	Cost of Road (p. 170), . . . . .	\$1,170,270.83
228,971.89	Cost of Equipment (p. 170), . . . . .	228,971.89
50,000.00	Stocks owned (p. 170), . . . . .	50,000.00
	Grand Total, . . . . .	\$1,449,242.72

Comparative General Balance Sheet.—*Continued.*

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	YEAR ENDING JUNE 30, 1893.	
			Increase.	Decrease.
\$600,000.00	Capital Stock (p. 168), .	\$600,000.00	.....	.....
650,000.00	Funded debt (p. 169), .	650,000.00	.....	.....
50,000.00	Current liabilities (p. 169),	50,000.00	.....	.....
16,875.00	Accrued interest on fund-	14,875.00	.....	\$2,000.00
132,367.72	ed debt not yet payable,	134,367.72	\$2,000.00	.....
	Profit and loss, . . .			
\$1,449,242.72	Grand Total, . . .	\$1,449,242.72	\$2,000.00	\$2,000.00

## Important Changes During the Year.

Lease to Housatonic Railroad canceled.

Leased to New York, New Haven & Hartford Railroad Company for ninety-nine years from July 1, 1892; \$200,000 7 per cent. Mortgage Bonds retired July 1, 1892, and \$200,000 5 per cent. Consolidated Mortgage Bonds issued in lieu.

## Contracts, Agreements, etc.

All contracts, etc., are made by the N. Y., N. H. & H. R. R. Co.

## Security for Funded Debt.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.	What Equip'm't M'tgaged.	What Income M'tgaged.	What Securities M'tgaged.
Consolidated Mortgage,	{ All the railroad,	36.20	\$13,812.15	All.	None.	None.
General Mortgage,	{ All the railroad,	36.20	4,143.64	All.	None.	None.

## Mileage.

Mileage owned by road making this report:

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage, Excluding Trackage Rights	Steel Rails.
	Main Line.	Branches and Spurs.		
Connecticut, . . . .	26.20	10.00	36.20	36.20



**Characteristics of Road.**

Included in report of New York, New Haven & Hartford Railroad Co.

**Oath.**

STATE OF CONNECTICUT, }  
COUNTY OF FAIRFIELD, } ss.

We, the undersigned, F. St. John Lockwood, President, and C. E. Robinson, Treasurer, of the Danbury & Norwalk Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all the financial operations of said Company during the period for which said return is made.

F. ST. JOHN LOCKWOOD,

*President.*

C. E. ROBINSON,

*Treasurer.*

Subscribed and sworn to before me this 9th day of September, 1893.

LEWIS C. GREEN,

*Notary Public.*

# HARTFORD & CONNECTICUT WESTERN RAILROAD COMPANY.

## History.

Name of common carrier making this report? Hartford & Connecticut Western Railroad Company.

Date of organization? June 30, 1881.

Under laws of what Government, State, or Territory organized? State of Connecticut, January, 1881, Resolution No. 123; January, 1882, Resolution No. 189. State of New York, Laws of 1882, chapter 339.

If a reorganized company, give name of original corporation, and refer to laws under which it was organized: Connecticut Western Railroad Company; chartered June 25, 1868; opened December 21, 1871.

The Hartford & Connecticut Western Railroad Company is the successor of the Connecticut Western Railroad Company by reason of foreclosure of mortgage, and was organized June 30, 1881, in accordance with a resolution (No. 123) of the General Assembly of the State of Connecticut, passed at its session January, 1881, "Incorporating the First Mortgage Bondholders of the Connecticut Western Railroad Company as the Hartford & Connecticut Western Railroad Company." By a resolution (No. 189) of the General Assembly of the State of Connecticut, passed at its session January, 1882, permission was given to the Hartford & Connecticut Western Railroad Company to purchase the Rhinebeck & Connecticut Railroad in the State of New York. Chapter 339 of the laws of 1882 of the State of New York is "An Act to authorize the Hartford & Connecticut Western Railroad Company to purchase the Rhinebeck & Connecticut Railroad." The Hartford & Connecticut Western Railroad was leased under date of August 30, 1889, to the Central New England & Western Railroad Company for one year from the 30th day of August, 1889; and under date of February 4, 1890, for fifty years from the 31st day of August, 1890.

What carrier operates the road of this company? Philadelphia, Reading & New England Railroad Company.

## Organization.

Names of Directors.	Post-Office Address.	Expiration of Term.
HENRY O. SEIXAS,	New York, N. Y.,	December 19, 1893.
JAMES ARMSTRONG,	" "	" "
A. A. MCLEOD,	Philadelphia, Pa.,	" "
W. R. TAYLOR,	" "	" "
JOHN W. BROCK,	" "	" "
W. W. GIBBS,	" "	" "
C. TOWER, JR.,	" "	" "
J. H. APPLETON,	Springfield, Mass.,	" "
H. A. BOTSFORD,	Hartford, Conn.,	" "
J. O. PHELPS,	Simsbury, Conn.,	" "
HENRY GAY,	West Winsted, Conn.,	" "
FREDERICK MILES,	Chapinville, Conn.,	" "
E. W. SPURR,	Falls Village, Conn.,	" "

Total number of stockholders at date of last election? 678.

Date of last meeting of stockholders for election of directors? December 20, 1892.

Post-office address of general office: Hartford, Conn.

Post-office address of operating office: None.

#### Officers.

Title.	Name.	Location of Office.
President,	H. O. SEIXAS,	New York, N. Y.
Vice-President,	J. O. PHELPS,	Simsbury, Conn.
Secretary,	E. R. BEARDSLEY,	Hartford, Conn.
Treasurer,	E. R. BEARDSLEY,	" "
Auditor,	H. W. WATSON,	" "

#### Property Operated.

Operated by the Philadelphia, Reading & New England Railroad Company.

#### Property Leased, or Otherwise Assigned for Operation.

Name of Railroad the Income of which from lease, or from other assignment for operation, is included in the Income Account (p. 176):

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Hartford & Conn. Western Leased to Central New England & Western.	Hartford	Rhinecliff	Philadelphia, Read- ing & New Eng- land.	2 per cent. on Capital Stock.	109.75

#### Contract existing between this Road and the Company by which it is operated.

The Hartford & Connecticut Western Railroad was leased to the Central New England & Western Railroad Company under date of the 4th day of February, 1890, for fifty years from the 31st day of August, 1890, to which date it had been leased for the period of one year from August 31st, 1889, at a rental of two per cent. on the capital stock. All taxes, rates, charges, assessments, and interest on the bonds to be paid by the lessee.

#### Capital Stock.

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	30,000	\$100.00	\$3,000,000	\$2,699,000	1% on \$2,685,500 1% on \$2,699,000	\$26,855 26,990
Total,	.....	.....	.....	.....	.....	\$53,845



**Capital Stock.**—*Continued.*

Manner of Payment for Capital Stock.	Number of Shares Issued during Year.	Total Number of Shares Issued.
Issued for bonds of the Conn. Western R. R. Co.,	159	18,990
“ for purchase of Rhinebeck & Conn. R. R.,	...	8,000
Total, . . . . .	159	26,990

REMARKS.—Bonds converted into stock at 60 per cent.

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash realized on amount Issued.
	Date of Issue.	When Due.				
1st Mortgage,	1883 June 30.	1903 July 1.	\$700,000.00	\$700,000.00	\$700,000.00	\$700,000.00

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
5 per cent.	January and July, . . .	\$35,000.00	\$35,000.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p. 175),	\$700,000.00	\$700,000.00	\$35,000.00	\$35,000.00

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Current Liabilities, . . . \$22,697.99	Loans and Bills payable, \$22,697.99

**Recapitulation.**

For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 174),	\$2,699,000.00	\$2,699,000.00	109.75	\$24,592.25
Bonds (p. 175),	700,000.00	700,000.00	109.75	6,378.13
Current Li'b'es (p. 175),	22,697.99	22,697.99	109.75	206.81
Total, . . . .	\$3,421,697.99	\$3,421,697.99	109.75	\$31,177.19

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Total Construction, . . . .	\$2,921,747.46	\$2,921,747.46	\$26,621.84
Total Equipment, . . . .	373,867.97	373,867.97	3,406.54
Grand Total Cost Construction, } Equipment, etc., }	\$3,295,615.43	\$3,295,615.43	\$30,028.38

**Income Account.**

Income from Lease of Road, . . . . .	\$88,845.00
Total Income, . . . . .	\$88,845.00
Interest on Funded Debt Accrued (p. 175), . . . . .	35,000.00
Net Income, . . . . .	\$53,845.00
Dividends, 2 per cent., Common Stock, . . . . .	53,845.00
Deficit on June 30, 1892, [from "General Balance Sheet," 1892 Report], . . . . .	\$10,310.51
Deficit on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .	10,310.51

## Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.
\$2,921,747.46	Cost of Road (p. 176), . . . . .	\$2,921,747.46
373,867.97	Cost of Equipment (p. 176), . . . . .	373,867.97
37,672.58	Springfield & Connecticut Railroad, . . . . .	37,672.58
99,099.47	Lands owned, . . . . .	99,099.47
10,310.51	Profit and Loss, . . . . .	10,310.51
\$3,442,697.99	Grand Total, . . . . .	\$3,442,697.99

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$2,683,100.00	Capital Stock (p. 174),	\$2,699,000.00	\$15,900.00	.....
36,900.00	Convertible Bonds,	21,000.00	.....	\$15,900.00
700,000.00	Funded Debt (p. 175),	700,000.00	.....	.....
22,697.99	Bills Payable, . . . . .	22,697.99	.....	.....
\$3,442,697.99	Grand Total, . . . . .	\$3,442,697.99	\$15,900.00	\$15,900.00

## Important Changes during the Year.

159 shares of Hartford & Connecticut Western stock have been issued in exchange for \$26,500.00 of Connecticut Western bonds at 60 per cent.

## Security for Funded Debt (p. 175).

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.	What Equipment Mortgaged.
	From—	To—	Miles.		
First Mortgage,	Hartford	Rhinecliff.	109.75	\$6,378.13	Entire.

## Description of Equipment.

All equipment leased.

### Mileage.

Mileage owned by road making this report:

State or Territory.	Line Represented by Capital Stock. Main Line.	Iron Rails.	Steel Rails.
Connecticut, . . . . .	67.25	.....	67.25
New York, . . . . .	42.50	11.79	30.71
Total Mileage owned (single track),	109.75	11.79	97.96

### Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
From—	To—	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Hartford	Rhinecliff.	109.75	333	49.76	59.99

### PROFILE.

Length of Level Line.  Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents.  Feet.	Aggregate length of Ascending Grades. Miles.	No.	Sum of Descents.  Feet.	Aggregate length of Descending Grades. Miles.
14.50	75	1,941.1	44.95	83	1,969.2	50.30

### BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.	MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Feet.	Inches.
Bridges: Iron, Wooden,	33 153	1,177 3,473	7 1	10 5	201 186	6 6
Total, . . .	186	4,650	8	..	....	..
Trestles, . . .	30	7,300	7	38	1,802	..



## HIGHWAY CROSSINGS.

Item.	Number.	Height of Lowest above Surface of Rail. Feet.
Overhead Highway Crossings: Bridges, . . . . .	10	17

GAUGE OF TRACK — 4 feet, 8½ inches ; 109.75 miles.

## Telegraph.

Reported by Lessee.

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF HARTFORD, } ss.

We, the undersigned, Jeffery O. Phelps, Vice-President, and Edward R. Beardsley, Treasurer, of the Hartford & Connecticut Western Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company ; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief ; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing returns embrace all the financial operations of said Company during the period for which said return is made.

JEFFERY O. PHELPS,

*Vice-President.*

EDWARD R. BEARDSLEY,

*Treasurer.*

Subscribed and sworn to before me this 25th day of August, 1893.

JEFFERY O. PHELPS, JR.,

*Notary Public.*

# HOUSATONIC RAILROAD COMPANY.

## History.

Name of common carrier making this report? Housatonic Railroad Company.

Date of organization? May, 1836.

Under laws of what Government, State, or Territory organized? State of Connecticut, under enactments in the following years, viz.: 1838, 1839, 1841, 1842, 1843, 1844, 1845, 1850, and 1870.

What carrier operates the road of this company? New York, New Haven & Hartford Railroad Company.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
J. PIERPONT MORGAN,	New York, N. Y.,	October 25, 1893.
WILLIAM ROCKEFELLER,	" "	" "
GEO. MACCULLOCH MILLER,	" "	" "
CHARLES LANIER,	" "	" "
CHARLES P. CLARK,	New Haven, Conn.,	" "
LUCIUS TUTTLE,	" "	" "
WILLIAM E. BARNETT,	" "	" "
MILO B. RICHARDSON,	Lime Rock, Conn.,	" "
A. B. MYGATT,	New Milford, Conn.,	" "

Total number of stockholders at date of last election? 245.

Date of last meeting of stockholders for election of directors? December 20, 1892.

Post-office address of general office. New Haven, Conn.

Post-office address of operating office. New Haven, Conn.

## Officers.

Title.	Name.	Location of Office.
President,	GEO. MACCULLOCH MILLER,	New York, N. Y.
Vice-President,	WILLIAM E. BARNETT,	New Haven, Conn.
Secretary and Treasurer,	C. E. ROBINSON,	" "

**Property Leased, or Otherwise Assigned for Operation.**

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account — (p. 183):

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Housatonic.	Bridgeport, Conn.,	Mass. State Line.	N. Y., N. H. & H.	Lease.	74.97
	Brookfield Jnc., Ct.,	Danbury, Conn.	" "	"	5.36
	Botsford, Conn.,	Huntington, Conn.	" "	"	9.79
Total Mileage, . . . . .					90.12

**Contract existing between this Road and the Company by which it is operated.**

Leased to the New York, New Haven & Hartford Railroad Company for 99 years from July 1, 1892; rental, one per cent. dividend on the preferred capital stock, payable June 30th of each year; also interest on the funded debt as same becomes due.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	...	\$100.00	.....	\$23,300.00	None.	.....
Preferred,	30,000	100.00	\$3,000,000.00	2,875,600.00	1 p. cent.	\$23,756
Total,	.....	.....	\$3,000,000.00	\$2,898,900.00	.....	\$23,756

Manner of Payment for Capital Stock.	Number of Shares Issued during Year.	Cash realized on Amt. Issued during Year.	Total Cash Realized.
Issued for Cash: Common, . . . . .	.....	\$2.33	Cannot furnish information.
Issued for exchange of preferred stock for common stock: Preferred, . . . .	78	287.56	
Total, . . . . .	78	\$289.89	.....

REMARKS.—One share of preferred issued for one and one-half shares of common in accordance with circular dated June 27, 1889.

**Funded Debt.**

Class of Bond or Obligation.	Time.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash realized on amount Issued.
	Date of Issue.	When Due.				
Con. 1st Mtge.,	1880	1910	\$700,000	\$400,000	\$100,000	Cannot determine.
Mortgage,	1882	1912	100,000	70,000	61,000	
Con. Mtge.,	1887	1937	3,000,000	2,839,000	2,839,000	
<b>Total,</b>	.....	.....	\$3,800,000	\$3,309,000	\$3,000,000	.....

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
4 per cent.	April and October.	\$4,000.00	\$4,000.00
5 per cent.	April and October.	3,050.00	3,050.00
5 per cent.	March and November.	141,950.00	141,950.00
.....	.....	\$149,000.00	\$149,000.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p. 182),	\$3,309,000.00	\$3,000,000.00	\$149,000.00	\$149,000.00

**Recapitulation.**

For mileage owned by road making this report.

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 181),	\$2,898,900.00	\$2,898,900.00	90.12	\$32,167.11
Bonds (p. 182),	3,000,000.00	3,000,000.00	90.12	33,288.95
<b>Total, . . .</b>	<b>\$5,898,900.00</b>	<b>\$5,898,900.00</b>	<b>90.12</b>	<b>\$65,456.06</b>



## Cost of Road, Equipment, and Permanent Improvements.

Item.	Expenditures during year not included in Operating Expenses, charged to Construction or Equipment.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.
Construction:			
Right of Way, . . . . .	\$1,200.00	.....	.....
Other Real Estate, . . . . .	8,000.00	.....	.....
Engineering Expenses, . . . . .	400.00	.....	.....
Other items, . . . . .	275.81	.....	.....
Total Construction, . . . . .	\$9,324.19	\$5,212,970.10	\$5,203,645.91
Total Equipment, . . . . .	.....	1,581,536.15	1,581,536.15
Total Cost Construction, } Equipment, etc., }	\$9,324.19	\$6,794,506.25	\$6,785,181.06

## Income Account.

Income from Lease of Road, . . . . .	\$177,756.00	
Total Income, . . . . .		\$177,756.00
Interest on Funded Debt Accrued (p. 182), . . . . .	\$149,000.00	
Total Deductions from Income, . . . . .		149,000.00
Net Income, . . . . .		\$28,756.00
Dividends, 1 per cent., preferred stock, . . . . .	\$28,756.00	
Total, . . . . .		28,756.00
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . . .		\$356,026.61
Additions for Year:		
Deferred Income, . . . . .	\$23,983.33	
Profit in the exchange of preferred stock for common stock, . . . . .	3,900.00	
Total additions, . . . . .	\$27,883.33	
Deductions for Year:		
Loss sustained by guaranty of New England Terminal Company Bonds, . . . . .	\$512,250.94	
Total Deductions, . . . . .		484,367.61
Deficit on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .		\$128,341.00

## Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$5,212,970.10	Cost of Road (p. 183), . .	\$5,203,645.91	.....	\$9,324.19
1,581,536.15	Cost of Equipment (p. 183), .	1,581,536.15	.....	.....
79,888.00	Stocks Owned, . . . . .	.....	.....	79,888.00
194,408.71	Other Permanent Invest- ments, . . . . .	178,481.32	.....	15,927.39
188,892.81	Cash and Current Assets, . .	.....	.....	188,892.81
136,502.91	Assets of doubtful value, . .	.....	.....	136,502.91
.....	Other Assets:	.....	.....	.....
114,530.37	Materials and Supplies, . .	.....	.....	114,530.37
11,007.67	Sundries, . . . . .	.....	.....	11,007.67
.....	Profit and Loss (p. 183), . .	128,341.00	\$128,341.00	.....
\$7,519,736.72	Grand Total, . . . . .	\$7,092,004.38	.....	\$427,732.34

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$2,902,800.00	Capital Stock (p. 181), . .	\$2,898,900.00	.....	\$3,900.00
3,000,000.00	Funded Debt (p. 182), . .	3,000,000.00	.....	.....
1,094,511.63	Current Liabilities, . . . . .	.....	.....	1,094,511.63
25,420.85	Accrued interest on Funded Debt not yet payable, . .	.....	.....	25,420.85
51,744.30	Accrued Rentals not due, . .	.....	.....	51,744.30
49,500.00	Accrued Taxes not due, . .	.....	.....	49,500.00
275.00	Other Items, . . . . .	.....	.....	275.00
39,458.33	Deferred Income, . . . . .	.....	.....	39,458.33
	N.Y., N.H. & H. R.R. Co., Lessee; Liabilities paid or assumed by that Company:			
	Current, . . . \$1,841,317.05			
	Accrued, . . . 135,317.03			
	Deferred, . . . 400,000.00			
	\$2,376,634.08			
	Less cash, material on hand, and other as- sets turned over to the N.Y., N.H. & H. R.R. Co., Lessee, 1,183,529.70	1,193,104.38	1,193,104.38	.....
356,026.61	Profit and Loss (p. 183), . .	.....	.....	356,026.61
\$7,519,736.72	Grand Total, . . . . .	\$7,092,004.38	.....	\$427,732.34

**Important Changes during the Year.**

Leases formerly held by this Company of roads of the following named companies have, by mutual agreement, been given up, and the properties are now under lease to the New York, New Haven & Hartford Railroad Company:

New Haven & Derby Railroad Company.

Danbury & Norwalk Railroad Company.

Berkshire Railroad Company.

Stockbridge & Pittsfield Railroad Company.

West Stockbridge Railroad Company.

Issue of 78 shares of preferred stock for 117 shares of common, in accordance with company's circular of June 27, 1889.

**Security for Funded Debt — (page 182).**

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.	What Equipment Mortgaged.	What Income or Securities Mortgaged.
	From—	To—	Miles.			
Consol. 1st Mtge.,	Bridgeport, Ct.,	Mass. Sta. Line.	74.97	{ Whole issue limited to \$3,000,000 }	All.	None.
Consol. Mortgage,	Bridgeport, Ct.,	Mass. Sta. Line.	74.97			
Mortgage, . . .	Brookfield Jct.,	Danbury, Ct.	5.36			

**Employees and Salaries.**

No salaries paid.

**Description of Equipment.**

Included in report of New York, New Haven & Hartford Railroad Co.

**Mileage.**

Mileage owned by road making this report.

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage Excluding Trackage Rights.	Steel Rails.
	Main Line.	Branches and Spurs.		
Connecticut, . . .	74.97	15.15	90.12	90.12

**Renewals of Rails and Ties.**

Included in report of New York, New Haven & Hartford Railroad Co.

**Accidents to Persons.**

Included in report of New York, New Haven & Hartford Railroad Co.

## Characteristics of Road.

WORKING DIVISION OR BRANCHES.			ALIGNMENT.		
			Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
From—	To—	Miles.			
Bridgeport, Conn.,	Mass. State Line.	74.97	.....	.....	.....
Botsford, Conn.,	Huntington, Conn.	9.79	36	5.56	4.23
Brookfield Jct., Ct.,	Danbury, Conn.	5.36	10	1.50	3.86
Total, . . . . .		90.12	.....	.....	.....

## PROFILE.

Length of Level Line. Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate length of Descending Grades. Miles.
.40	1	397	9.21	1	10	.18
.50	1	60	3.00	2	40	1.86

The alignment and profile heretofore given for the main line owned, has been shown in connection with the leased lines of the Berkshire Railroad Company and the Stockbridge & Pittsfield Railroad Company, constituting the line operated from Bridgeport, Conn., to Pittsfield, Mass. Owing to incomplete records prior to the time the present engineer assumed charge, the alignment and profile of the road owned from Bridgeport, Conn., to the Massachusetts State Line cannot now be given separately, but it is given as heretofore in the report of the New York, New Haven & Hartford Railroad Company.



## Characteristics of Road.—Continued.

## BRIDGES, TRETTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, . . .	12	166	....	10	..	26	....
Iron, . . .	4	518	....	27	6	341	....
Wooden, . .	14	609	....	13	..	177	....
Total, . .	30	1,293	....	..	....	....	....
Trestles, . .	4	1,919	....	116	....	720	....
Tunnels, . .	1	250	....	....	....	....	....

## HIGHWAY CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings:			
Bridges, . . . . .	3	14	....
Tunnels, . . . . .	1	14	2

GAUGE OF TRACK—4 feet, 8½ inches; 90.12 miles.

## Telegraph.

a. Owned by company making this report.

Miles of Line.	Miles of Wire.	Name of Operating Company.
9.79	9.79	Western Union Telegraph Co.

b. Owned by another company, but located on property of road making this report.

Miles of Line.	Name of Owner.	Name of Operating Company.
90.12	Western Union Telegraph Co.	Western Union Telegraph Co.

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, William E. Barnett, Vice-President, and C. E. Robinson, Treasurer, of the Housatonic Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

WM. E. BARNETT,  
*Vice-President.*

C. E. ROBINSON,  
*Treasurer.*

Subscribed and sworn to before me this 25th day of September, 1893.

A. S. MAY,  
*Notary Public.*

# MERIDEN, WATERBURY & CONNECTICUT RIVER RAILROAD CO.

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## History.

Name of common carrier making this report? Meriden, Waterbury & Connecticut River Railroad Co.

Date of organization? June 9, 1888.

Under laws of what Government, State, or Territory organized? State of Connecticut.

If a consolidated company, name the constituent companies:

Formed by the consolidation of the Meriden & Cromwell Railroad Company, organized under the General Railroad Laws of Connecticut, July 10, 1882, and the Meriden & Waterbury Railroad Company, organized under the General Railroad Laws of Connecticut, May 24, 1887.

Date and authority for each consolidation:

Consolidated under an act entitled "An Act authorizing the consolidation of certain Railroad Companies," passed by the General Assembly of the State of Connecticut, at its January Session, 1887, approved March 10, 1887, and to be found on pages 481, 482, and 483 of the Special Acts and Resolutions of the General Assembly of the State of Connecticut, January Session, 1887.

What carrier operates the road of this Company? The New York & New England Railroad Company has operated this road since Sept. 1, 1892.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
F. H. PRINCE,	Boston, Mass.,	November 14, 1893.
CHARLES PARSONS, JR.,	New York, N. Y.,	" "
D. S. PLUME,	Waterbury, Conn.,	" "
A. S. CHASE,	" "	" "
E. D. STEELE,	" "	" "
SAMUEL DODD,	Meriden, "	" "
W. H. LYON,	" "	" "
C. B. ROGERS,	" "	" "
GEORGE ROCKWELL,	" "	" "

Total number of stockholders at date of last election? 277.

Date of last meeting of stockholders for election of directors? November 23, 1892.

Post-office address of general office? Boston, Mass.

Post-office address of operating office? Boston, Mass.

**Officers.**

Title.	Name.	Location of Office.
President,	F. H. PRINCE,	2 and 8 State St., Boston, Mass.
Vice-President,	D. S. PLUME,	Waterbury, Conn.
Secretary,	GEORGE B. PHIPPEN,	180 Summer St., Boston.
Treasurer,	"	"

**Property Operated.**

Name of every Railroad the operations of which are included in the Income Account (p. 193):

Name.	TERMINALS.		Miles of Line for each Road Named.	Miles of Line for each Class of Roads Named.
	From—	To—		
M., W. & Conn. River R. R. Co.,	Cromwell,	{ N.Y. & N.E. R.R. Co., Waterbury.	{ 29.50	29.50
Center St. Ext. in Meriden,	.....	.....	.84	.84
Total, . . . . .			30.34	30.34

The operating figures included in the Income Account, page 193, are for the months of July and August, 1892, being that portion of the year prior to the date of the lease given to the New York & New England Railroad Company.

**Property Leased, or otherwise Assigned for Operation.**

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account (p. 193):

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Meriden, Waterbury & Conn. River Railroad,	Cromwell	Waterbury.	New York & New England Railroad Co.	Lease, 99 years from Sept. 1, 1892.	30.34

**Contract existing between this Road and the Company by which it is operated.**

The property of this Company was leased to the New York & New England Railroad Company, under an indenture made September 1, 1892, for ninety-nine years, beginning on that date, for a fixed annual rental of twenty-two thousand five hundred dollars, to be paid in equal semi-annual installments to the Farmers Loan and Trust Company of New York, trustee, and to be applied by the trustee to the payment of interest coupons upon four hundred and fifty thousand dollars of first mortgage bonds of the lessor outstanding, and upon any bonds that may be issued in renewal or extension thereof.

The floating indebtedness, not to exceed \$10,000, was assumed by the lessee, and \$50,000 in first mortgage bonds of the Company was deposited with the trustee by the lessor to pay the floating debt, and to improve, better, or extend the road.



**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Common, . . .	5,000	\$100.00	\$500,000.00	\$484,000.00

Manner of Payment for Capital Stock.	Total Number of Shares Issued.
Issued for consolidation of the Meriden & Cromwell Railroad Company, and the Meriden & Waterbury Railroad Company,	4,840

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Bonds.	When Due.				
1st Mtge. Bds.,	1888 July 1.	1925 July 1.	\$450,000.00	\$450,000.00	\$450,000.00	\$450,000.00

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
5 per cent.	January and July.	\$22,500.00	\$22,500.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p. 191),	\$450,000.00	\$450,000.00	\$22,500.00	\$22,500.00

## Recapitulation.

a. For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 191),	\$484,000.00	\$484,000.00	30.34	\$15,952.53
Bonds (p. 191), . . .	450,000.00	450,000.00	30.34	14,831.90
Total, . . . .	\$934,000.00	\$934,000.00	30.34	\$30,784.43

b. For mileage operated by road making this report (trackage rights excluded), the operations of which are included in the Income Account (p. 193):

Name of Road.	Capital Stock.	Funded Debt.	Total.	AMOUNT PER MILE OF ROAD.	
				Miles.	Amount.
M., W. & Ct. Riv. R.R.	\$484,000.00	\$450,000.00	\$934,000.00	30.34	\$30,784.43

## Cost of Road, Equipment, and Permanent Improvements.

Item.	Expenditures during year not included in Operating Expenses charged to Construction or Equipment.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Construction:				
Right of Way, . . . .	*\$250.57			
Sidings and yard exten.,	117.76			
Total Construction,	*\$132.81			
Equipment:				
Credit transferred from Profit and Loss Acct.,	*†\$623,660.06			
Total Cost Construction, Equipment, etc.	\$623,792.87	\$1,557,792.87	\$934,000.00	\$30,784.43

\* The sums marked with an asterisk (\*) denote credits.

† The mortgage bonds having been reduced by agreement from \$1,000,000 to \$450,000, all accrued bond interest having been abated to July 1, 1892, and the floating indebtedness shown by the books having been assumed by the lessee,

there is a consequent credit to profit and loss account for the year, with the addition of a few small credit items properly transferable to the account, of \$634,824.28. This amount, less the loss from operation for the two months prior to September 1, 1892, the date of the lease to the New York & New England Railroad Company, \$8,164.22, gives the net profit and loss credit for the year of \$623,660.06. This credit results in wiping out all the accounts of the Company, except the amount charged as the cost of its road and equipment, and except, outside of the resulting book surplus, the amount credited to the capital stock account, and the amount credited to the account of its reduced mortgage bonds. The book surplus is then transferred to the credit of the cost of road and equipment as being properly a reduction of that account on the books, leaving the account on a parity with the amount of capital stock and bonds outstanding, instead of showing the actual amount expended in constructing and equipping the road.

### Income Account.

(For the months of July and August, 1892.)

Gross Earnings from Operation (p. 194), . . . . .	\$13,581.85	
Less Operating Expenses, . . . . .	17,929.69	
Deficit, . . . . .		\$4,347.84
Deductions from Income:		
Interest on Funded Debt accrued (p. 191), . . . . .		3,333.33
Deficit, . . . . .		\$7,681.17
Deficit from Operations of Year ending June 30, 1893,		\$7,681.17
Deficit on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . . .		483.05
		<u>\$8,164.22</u>

### Deductions for Year:

Reduction in bonded indebtedness, pursuant to the agreement of lease given to the New York & New England Railroad Company, . . . . .	\$550,000.00	
Interest on bonds canceled to July 1, 1892, as agreed:—First mortgage bonds, 5 per cent. per annum on \$600,000 from date issued, Feb. 23, 1892, $4\frac{1}{2}$ months, . . . . .	10,500.00	
Second mortgage bonds, 6 per cent. per annum on \$400,000 from date of issue, Dec. 5, 1889, 2 years, 6 months, and 25 days, . . . . .	61,666.67	
Floating indebtedness, Sept. 1, 1892, transferred to the New York & New England Railroad Co., . . . . .	8,552.59	
Credit balances of old accounts transferred to profit and loss, . . . . .	501.37	
Partial payments on subscriptions to capital stock not issued, . . . . .	603.65	
Total Deductions, . . . . .		631,824.28
Surplus, . . . . .		<u>\$623,660.06</u>
Credit transferred to cost of road and equipment (p. 192,) . . . . .		<u>\$623,660.06</u>

**Income Account.**

(September 1, 1892, to June 30, 1893.)

Income from Lease of Road, . . . . .	\$19,166.67
Total Income, . . . . .	<u>\$19,166.67</u>
Deductions from Income:	
Interest on Funded Debt accrued, 10 months from Sept. 1, 1892, to June 30, 1893, (p. 191), . . .	<u>\$19,166.67</u>

**Earnings from Operation.**

Item.	Total Receipts.	Actual Earnings.
Passenger:		
Passenger Revenue, . . . . .	\$3,038.40	
Total Passenger Revenue, . . . . .		\$3,038.40
Express, . . . . .		500.00
Extra Baggage and Storage, . . . . .		21.27
Total Passenger Earnings, . . . . .		\$3,559.67
Freight:		
Freight Revenue, . . . . .	\$8,881.68	
Total Freight Revenue, . . . . .		\$8,881.68
Other Items, . . . . .		353.78
Total Freight Earnings, . . . . .		\$9,235.46
Other Earnings from Operation:		
Car Mileage—Balance, . . . . .		170.91
Rents not otherwise provided for, . . . . .		26.00
Other sources, . . . . .		589.81
Total other Earnings, . . . . .		\$786.72
Total Gross Earnings from Operation, . . . . .		\$13,581.85

**Operating Expenses.**

The operating expenses were not classified for the two months of the year in which the road was operated by its stock-owners.



## Comparative General Balance Sheet.

Item, June 30, 1892.	Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Decrease Year ending June 30, 1893.
1,424,935.81 } 132,857.06 }	1,557,792.87	{ Cost of Road (p. 192), } { Cost of Equipment (p. 192), }	\$934,000.00	\$623,792.87
	24,871.17	Cash and Current Assets, . . . . .	24,871.17	24,871.17
	5,490.03	Materials and Supplies, . . . . .	5,490.03	5,490.03
	483.05	Profit and Loss (p. 193), . . . . .	483.05	483.05
	1,588,637.12	Grand Total, . . . . .	\$934,000.00	\$654,637.12

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Decrease Year ending June 30, 1893.
\$500,000.00	Capital Stock (p. 191), . . . . .	\$484,000.00	*\$16,000.00
1,000,000.00	Funded Debt (p. 191), . . . . .	450,000.00	550,000.00
88,637.12	Current Liabilities, . . . . .	88,637.12	88,637.12
\$1,588,637.12	Grand Total, . . . . .	\$934,000.00	\$654,637.12

\* The reduction in the capital stock account is treasury stock unissued and transferred.

## Important Changes during the Year.

The road was leased to the New York & New England Railroad Company for 99 years from September 1, 1892.

## Contracts, Agreements, etc.

With the United States Express Company. They do all the express business at a stated annual rental.

With the Hartford & New York Transportation Company for through freight rates and divisions.

The New York & New England Railroad Company's agreements for other through freight business have been in force since the date of the lease, September 1, 1892.

With the Western Union Telegraph Company, whereby right of way is conceded in consideration of telegraphic facilities furnished the railroad company.

## Security for Funded Debt (page 191).

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.	What Equipment Mortgaged.
First Mortgage Bonds,	Entire Line.	30.34	\$14,831.90	All.

## Description of Equipment.

Item.	Total Number at end of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives:					
Passenger, . . . .	2	2	Westinghouse.		
Freight, . . . .	3	{ 2 1	Eames.		
Total, . . . .	5	5			
Cars in Passenger Service:					
First-class Pass. Cars, .	4	4	Westinghouse.	4	Miller.
Second-class Pass. Cars, .	2	2	"	2	"
Combination Pass. Cars, .	4	4	"	4	"
Total, . . . .	10	10	.....	10	
Cars in Freight Service:					
Box Cars, . . . .	18	.....	.....	9	Whittemore.
Flat Cars, . . . .	20	.....	.....		
Coal Cars, . . . .	116	.....	.....	75	"
Total, . . . .	154	.....	.....	84	
Cars in Company's Service:					
Derrick Cars, . . . .	1				
Total, . . . .	1				
Total Cars Owned, . . .	165	10	.....	94	
Grand Total Cars, . . .	165	10	.....	94	

### Mileage.

#### a. MILEAGE OF ROAD OPERATED.

Line in Use.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage Operated.	New Line constructed during year.	Steel Rails.
	Main Line.	Branches and Spurs.			
Miles of single track, . . . .	29.50	.84	30.34	.....	30.34
Miles of yard track and sidings,	6.34	.80	7.14	1.19	7.14
Total Mileage Optd. (all tracks),	35.84	1.64	37.48	1.19	37.48

#### b. MILEAGE OF LINE BY STATES AND TERRITORIES.

Mileage owned and operated by road making this report:

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage Excluding Trackage Rights.	Steel Rails.
	Main Line.	Branches and Spurs.		
Connecticut, .	29.50	.84	30.34	30.34

### Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
From—	To—	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Cromwell, Conn.	Waterbury, Conn.	29.50	69	14.26	15.24
Center St. Ext. in	Meriden, Conn.	.84	3	.30	.54
Total, . . . . .		30.34	72	14.56	15.78

## Characteristics of Road.—Continued.

## PROFILE.

Length of Level Line.  Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate length of Descending Grades. Miles.
6.23	24	779.5	12.68	19	512.5	10.59
.....	.....	.....	.....	1	46	.84
6.23	24	779.5	12.68	20	560 5	11.43

## BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Iron, .	19	1,509	..	21	..	192	..
Wooden, .	7	175	..	12	..	50	..
Total, .	26	1,686	..	..	..	..	..
Trestles, .	30	6,751	..	12	..	2,944	..

## OVERHEAD CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings:—Bridges, .	13	15	..
Trestles, . . . . .	6	18	..
Total, . . . . .	19	..	..
Overhead Railway Crossings:—Bridges, .	2	15	..

GAUGE OF TRACK — 4 feet, 8½ inches; 30.34 miles.



**Telegraph.**

Owned by another company, but located on property of road making this report:

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
30.34	83.14	Western Union Tel. Co.	Western Union Tel. Co.

**Car Mileage.**

The lessee pays all mileage charges.

**Oath.**

STATE OF MASSACHUSETTS, }  
COUNTY OF SUFFOLK, } ss.

I, the undersigned, F. H. Prince, President of the Meriden, Waterbury & Connecticut River Railroad Company, on oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all the financial operations of said Company during the period for which said return is made.

F. H. PRINCE,  
*President.*

Subscribed and sworn to before me this 22d day of September, 1893.

WILLIAM H. FLEMING,  
*Justice of the Peace.*

# NAUGATUCK RAILROAD COMPANY.

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## History.

Name of common carrier making this report? Naugatuck Railroad Company.

Date of organization? May, 1845.

Under laws of what Government, State, or Territory organized? State of Connecticut. (Private laws of Connecticut, vol. iv, pp. 944-949, 950, 951, 952; do. vol. v, pp. 75, 753; Special Laws of Connecticut, vol. vi, pp. 8, 9, 23, 293, 709, 874; Special Laws of Connecticut, vol. vii, p. 114.)

Not a consolidated company.

What carrier operates the road of this company? Leased to and operated by the New York, New Haven & Hartford Railroad Company.

## Organization.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
W. D. BISHOP,	Bridgeport, Conn.,	November 16, 1893.
F. J. KINGSBURY,	Waterbury, "	" "
D. W. PLUMB,	Shelton, "	" "
R. M. BASSETT,	Derby, "	" "
JOEL A. SPERRY,	New Haven, "	" "
W. D. BISHOP, JR.,	Bridgeport, "	" "
S. S. DENNIS,	Newark, N. J.,	" "
CHARLES F. BROOKER,	Torrington, Conn.,	" "
A. HEATON ROBERTSON,	New Haven, "	" "

Total number of stockholders at date of last election? 634.

Date of last meeting of stockholders for election of directors? November 16, 1892.

Post-office address of general office: President and Secretary, Bridgeport, Conn.; Treasurer, New Haven, Conn.

Post-office address of operating office, New Haven, Conn.

## Officers.

Title.	Name.	Location of Office.
President,	WILLIAM D. BISHOP,	Bridgeport, Conn.
Secretary,	HORACE NICHOLS,	" "
Treasurer,	WILLIAM L. SQUIRE,	New Haven, "
Division Superintendent,	GEORGE W. BEACH,	Waterbury, "

**Property Leased, or Otherwise Assigned for Operation.**

Name of railroad the income of which from lease, or from other assignment for operation, is included in the income account — (p. 203).

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Naugatuck Railroad Co.	Naugatuck Junction	Winsted.	Leased to and operated by the N. Y., N. H. & H. R. R. Company.	Lease.	56.55
	Watertown	Waterbury.			4.44
Total mileage, . . . . .					60.99

**Contract Existing between this Road and the Company by which it is Operated.**

The Naugatuck Railroad was leased May 24, 1887, to the New York, New Haven & Hartford Railroad Company for ninety-nine years from April 1, 1887, at an annual rental of \$200,000 and interest on the bonds of said Company.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	20,000	\$100.00	\$2,000,000.00	\$2,000,000.00	10 p. c.	\$200,000.00

Manner of Payment for Capital Stock.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash, Common, . . . . .	3,976.96	\$397,696.00
Issued for Bonds, . . . . .	2,730	273,000.00
Issued for Construction, Common, . . . . .	6,758.79	675,879.00
Issued for Undivided Earnings, . . . . .	1,427	142,700.00
Issued for increased valuation of road or equipment, or both, . . . . .	4,488.25	448,825.00
Stock charged profit and loss for loss on stock sold, . . . . .	302	30,200.00
Stock charged profit and loss for over-issue by New York transfer agent, . . . . .	317	31,700.00
Total, . . . . .	20,000.00	\$2,000,000.00

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
1st Mortgage,	1863	1913	\$750,000.00	\$150,000.00	\$150,000.00	\$150,000.00

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
4 per cent.	June 1st and December 1st.	\$6,000.00	\$6,000.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
M'tge bonds (p. 202)	\$150,000.00	\$150,000.00	\$6,000.00	\$6,000.00

**Recapitulation.**

For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 201),	\$2,000,000.00	\$2,000,000.00	60.99	\$32,792.26
Bonds (p. 202), . .	150,000.00	150,000.00	60.99	2,459.42
Total, . . .	\$2,150,000.00	\$2,150,000.00	60.99	\$35,251.68



**Cost of Road, Equipment and Permanent Improvements.**

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Construction, . . .	\$2,024,697.45	\$2,024,697.45	\$35,803.67
Equipment, . . .	297,086.57	297,086.57	5,253.52
Total, . . .	\$2,321,784.02	\$2,321,784.02	\$41,057.19

**Income Account.**

Income from lease of road, . . . . .	\$206,000.00
Deductions from Income:	
Interest on Funded Debt accrued (p. 202), . . .	6,000.00
Net Income, . . . . .	\$200,000.00
Dividends, 10 per cent., common stock, . . .	\$200,000.00
Surplus on June 30, 1892 (from "Gen'l Balance Sheet," 1892 Report),	\$272,784.02
Surplus on June 30, 1893 (for entry on Gen'l Balance Sheet),	\$272,784.02

**Comparative General Balance Sheet.**

Total, June 30, 1892.	Assets.	Total, June 30, 1893.
\$2,024,697.45	Cost of Road (p. 203), . . . . .	\$2,024,697.45
297,086.57	Cost of Equipment (p. 203), . . . . .	297,086.57
101,500.00	Lands owned, . . . . .	101,500.00
\$2,423,284.02	Grand Total, . . . . .	\$2,423,284.02

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.
\$2,000,000.00	Capital Stock (p. 201), . . . . .	\$2,000,000.00
150,000.00	Funded Debt (p. 202), . . . . .	150,000.00
500.00	Accrued interest on funded debt not yet payable,	500.00
272,784.02	Profit and loss, . . . . .	272,784.02
\$2,423,284.02	Grand Total, . . . . .	\$2,423,284.02

**Security for Funded Debt.**

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From —	To —	Miles.	
First Mortgage,	Naug'k Junction	Winsted.	56.55	\$2,652.52

### Mileage.

Mileage owned by road making this report:

State or Territory.	Main Line.	Steel Rails.
Connecticut (now includes Watertown & Waterbury Branch),	60.99	60.99

### Characteristics of Road.

WORKING DIVISION OR BRANCHES.			ALIGNMENT.		
From —	To —	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Naugatuck Junction Watertown	Winsted. Waterbury.	56.55	...	.....	.....
		4.44	...	.....	.....
		60.99	252	34.39	26.60

### PROFILE.

Length of Level Line. Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
9.09	69	1,148	40.34	45	236	11.56

### BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	Aggregate Length. Feet.	Minimum Length. Feet.	Maximum Length. Feet.
Bridges:				
Stone, . . . .	5	57	9	14
Iron, . . . .	26	1,600	12	293
Wooden, . . . .	18	805	12	102
Total, . . . .	49	2,462	..	....
Trestles, . . . .	13	2,733	45	954

## OVERHEAD HIGHWAY CROSSINGS.

Item.	Number.	Height of Lowest above Surface of Rail. Feet.
Overhead Highway Crossings: Bridges, . . . . .	4	16.01

GAUGE OF TRACK — 4 feet, 8½ inches; 60.99 miles.

## TELEGRAPH.

Owned by another company, but located on property of road making this report:

Miles of Line.	Name of Owner.	Name of Operating Company.
60.99	Western Union Telegraph Co.	Western Union Telegraph Co.

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, William D. Bishop, President, and William L. Squire, Treasurer, of the Naugatuck Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said company during the period for which said return is made.

WM. D. BISHOP,  
*President.*

WM. L. SQUIRE,  
*Treasurer.*

Subscribed and sworn to before me this 20th day of September, 1893.

A. S. MAY,  
*Notary Public.*

# NEW HAVEN & DERBY R. R. CO.

## History.

Name of common carrier making this report? New Haven & Derby Railroad Company.

Date of organization? August 24, 1867.

Under laws of what Government, State, or Territory organized? General railroad law of Connecticut.

What carrier operates the road of this company? New York, New Haven & Hartford Railroad Company.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
LUCIUS TUTTLE,	New Haven, Conn.,	October, 1893.
CHARLES P. CLARK,	" "	" "
N. D. SPERRY,	" "	" "
S. E. MERWIN,	" "	" "
J. PIERPONT MORGAN,	New York, N. Y.,	" "
WM. ROCKEFELLER,	" "	" "
W. E. BARNETT,	New Haven, Conn.,	" "
FRANKLIN FARREL,	Ansonia, Conn.,	" "
THOMAS WALLACE,	" "	" "

Total number of stockholders at date of last election? 121.

Date of last meeting of stockholders for election of directors? December 20, 1892.

Post-office address of general office? New Haven, Conn.

## Officers.

Title.	Name.	Location of Office.
President,	LUCIUS TUTTLE,	New Haven, Conn.
Vice-President,	CHARLES P. CLARK,	" "
Secretary,	A. J. PORTER,	" "
Treasurer,	C. E. ROBINSON,	" "



**Property Leased, or Otherwise Assigned for Operation.**

Name of Railroad, the income of which from lease or from other assignment for operation, is included in the Income Account (p. 209):

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
New Haven & Derby R. R.,	New Haven	Ansonia.	New York, New Haven & Hartford R. R. Co.	Lease.	12.90
New Haven & Derby R. R. Extension,	Derby	Huntington.	New York, New Haven & Hartford R. R. Co.	"	3.79
Total Mileage, . . . . .					16.69

**Contract existing between this Road and the Company by which it is Operated.**

All the railroad and property leased to the New York, New Haven & Hartford Railroad Company for 99 years from July 1, 1892.

Rental, 3 per cent. dividends on Capital Stock to and including June 30, 1895, and 4 per cent. thereafter during term of lease, and interest on Bonds.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	7,000	\$100.00	\$700,000.00	\$447,000.00	3 per ct.	\$13,410.00

Manner of Payment of Capital Stock.	Total number of Shares Issued.	Total Cash Realized.
Issued for Cash: Common, . . . . .	4,470	\$447,000.00

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
First Mortgage,	1870	1900	\$225,000.00	\$225,000.00	\$225,000.00	\$225,000.00
Consol. Mortgage,	1888	1918	800,000.00	575,000.00	575,000.00	575,000.00
Mortgage Ctf.,	1888	1900	480,000.00	480,000.00	480,000.00	480,000.00
Real Estate Ctf.,	1888	1900	225,000.00	225,000.00	175,000.00	225,000.00
J.A.Bostwick Ctf.,	1888	1910	71,900.88	71,900.88	71,900.88	71,900.88
Grand Total,	....	....	1,801,900.88	1,576,900.88	1,526,900.88	1,576,900.88

## INTEREST.

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
7 per cent.	February and August.	\$15,750.00	\$15,750.00
5 per cent.	May and November.	28,750.00	28,750.00
6 per cent.	February and August.	28,800.00	28,800.00
6 per cent.	February and August.	10,500.00	10,500.00
6 per cent.	February and August.	4,314.05	4,314.05
Total,	.....	\$88,114.05	\$88,114.05

## Recapitulation of Funded Debt.

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mtge. Bds. (p. 207),	\$1,576,900.88	\$1,526,900.88	\$88,114.05	\$88,114.05

## Recapitulation.

For mileage owned by road making this report:

Account	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 207),	\$447,000.00	\$447,000.00	16.69	\$26,782.44
Bonds (p. 207), . . .	1,526,900.88	1,526,900.88	16.69	91,485.97
Total, . . . . .	\$1,973,900.88	\$1,973,900.88	16.69	\$118,268.41

## Cost of Road, Equipment, and Permanent Improvement.

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Construction—Total to June 30, 1888,	\$1,267,951.90	\$1,267,951.90	\$75,970.75
Right of Way, . . . . .	19,188.67	19,188.67	1,149.71
Other Real Estate, . . . . .	297,620.88	247,620.88	14,836.48
Fences, . . . . .	101.49	101.49	6.08
Grading, Bridge and Culvert Masonry,	47,800.42	47,800.42	2,864.01
Bridges and Trestles, . . . . .	3,693.82	3,693.82	221.31
Rails, . . . . .	27,990.23	27,990.23	1,677.06
Ties, . . . . .	19,035.38	19,035.38	1,140.52
Other Superstructure, . . . . .	28,239.17	28,239.17	1,691.98
Buildings, Furniture, and Fixtures, .	16,832.34	16,832.34	1,008.53
Shop Machinery and Tools, . . . . .	10,080.95	10,080.95	604.01
Engineering Expenses, . . . . .	12,456.46	12,456.46	746.34
Interest during Construction, . . . .	2,273.71	2,273.71	136.23
Disc. on Securities Sold for Construction,	27,500.00	27,500.00	1,647.69
Terminal Facilities and Elevators, . .	5,545.00	5,545.00	332.23
Road built by Contract, . . . . .	55,007.76	55,007.76	3,295.85
Other items, . . . . .	14,973.80	14,973.80	897.17
Total Construction, . . . . .	\$1,856,291.98	\$1,806,291.98	108,225.95
Equipment—Total to June 30, 1888, .	180,999.31	180,999.31	10,844.77
Locomotives, . . . . .	19,676.31	19,676.31	1,178.93
Total Equipment, . . . . .	\$200,675.62	\$200,675.62	12,023.70
Total cost Construction, Equipm't, etc.,	\$2,056,967.60	\$2,006,967.60	120,249.65

## Income Account.

Income from Lease of Road, . . . . .	\$101,524.05	
Total Income, . . . . .		\$101,524.05
Interest on Funded Debt accrued (p. 208), .	\$88,114.05	
Total Deduction from Income, . . . . .		88,114.05
Net Income, . . . . .		\$13,410.00
Dividends, 3 per cent. Common Stock, . . .		13,410.00
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . . .		\$2,290.06
Additions for Year, . . . . .		1,250.00
Surplus on June 30, 1893, [for entry on General Bal- ance Sheet,"] . . . . .		\$3,540.06

### Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.
\$1,856,291.98	Cost of Road (p. 209), . . . . .	\$1,806,291.98
200,675.62	Cost of Equipment (p. 209), . . . . .	200,675.62
\$2,056,967.60	Grand Total, . . . . .	\$2,006,967.60

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$447,000.00	Capital Stock (p. 207), . . . . .	\$447,000.00	.....	.....
1,576,900.88	Funded Debt (p. 207) . . . . .	1,526,900.88	.....	\$50,000.00
30,776.66	Accrued Interest on Funded Debt not yet payable, . . . . .	29,526.66	.....	1,250.00
2,290.06	Profit and Loss, . . . . .	3,540.06	\$1,250.00	.....
\$2,056,967.60	Grand Total, . . . . .	\$2,006,967.60	.....	\$51,250.00

### Important Changes during the Year.

Lease to Housatonic Railroad Company canceled.

Leased to New York, New Haven & Hartford Railroad Co. for 99 years from July 1, 1892.

\$50,000 Real Estate Certificates retired.

### Contracts, Agreements, etc.

All contracts made by New York, New Haven & Hartford Railroad Co.

**Security for Funded Debt** (p. 207).

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.	What Equipment Mortgaged.	What Income Mortgaged.	What Securities Mortgaged.
	From —	To —	Miles.				
1st Mortgage, . . .	{ New Haven Derby }	Ansonia. Huntington. }	16.69	\$13,481.13	All.	None.	None.
Consol. Mortgage, .	"	"	16.69	34,451.77	"	"	"
M'tge Certificates,	"	"	16.69	28,759.73	"	"	"
Real Estate Certifc.	{ None.	None.	....	None.	None.	"	{ Real Estate in N. Haven & Shelton.
J. A. Bostwick, Ctf. }							



### Mileage.

Mileage owned by road making this report.

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage, Excluding Trackage Rights.	Steel Rails.
	Main Line.	Branches and Spurs.		
Connecticut, . . . . .	12.90	3.79	16.69	16.69

### Characteristics of Roads.

Included in report of New York, New Haven & Hartford Railroad Co.

### Oath.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, Lucius Tuttle, President, and C. E. Robinson, Treasurer, of the New Haven & Derby Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

LUCIUS TUTTLE,  
*President.*

C. E. ROBINSON,  
*Treasurer.*

Subscribed and sworn to before me this 18th day of September, 1893.

A. S. MAX,  
*Notary Public.*

# NEW HAVEN & NORTHAMPTON COMPANY.

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## History.

Name of common carrier making this report? The New Haven & Northampton Company.

Date of organization? 1862.

Under laws of what Government, State, or Territory organized?

Under the laws of the States of Massachusetts and Connecticut. Massachusetts Special Laws, vol. 11, pp. 286, 653; vol. 12, pp. 25, 736, 822; vol. 13, p. 484; vol. 14, pp. 386, 485, 623; vol. 15, pp. 677, 1430. Connecticut Private Laws, vol. 5, pp. 460, 724. Connecticut Special Laws, vol. 6, pp. 217, 303, 733; vol. 7, pp. 267, 871, 987; vol. 8, pp. 296, 419, 420. Connecticut Private Acts 1870, pp. 146, 198. Connecticut Special Acts 1875, p. 130; 1876, p. 119.

If a consolidated company, name the constituent companies.

The constituent companies were the original New Haven & Northampton Company (Massachusetts Special Laws, vol. 7, pp. 675, 691). Connecticut Private Laws, vol. 1, p. 308; vol. 3, p. 294; vol. 4, pp. 1384, 888, 982-3-4 and 5. Connecticut Private Acts 1847, p. 104. The Hampden Railroad Company (Massachusetts Special Laws, vol. 9, p. 546). The Northampton & Westfield Railroad Corporation (Massachusetts Special Laws, vol. 9, p. 561). The Hampshire & Hampden Railroad Corporation (Massachusetts Special Laws, vol. 9, pp. 767, 773; vol. 10, p. 552, 742, 922), and The Farmington Valley Railroad Company (Private Laws of Connecticut, vol. 4, pp. 893, 896. Connecticut Private Acts 1858, p. 125; 1862, p. 94; 1867, p. 275).

Date and authority for each consolidation?

In 1853, The Hampden Railroad Company with the Northampton & Westfield Railroad Corporation, forming The Hampshire & Hampden Railroad Corporation. In 1862, The Hampshire & Hampden Railroad Corporation, with the original New Haven & Northampton Company, and also in 1862, with the Farmington Valley Railroad Company. For authority for each consolidation see Acts cited above.

If a reorganized company, give name of original corporation, and refer to laws under which it was organized.

Originally, in Connecticut. The President, Directors, and Company of the Farmington Valley Canal Company (Private Laws of Connecticut, vol. 1, pp. 300, 307, 308, and 318), and in Massachusetts, The Hampshire and Hampden Canal Company, Massachusetts Special Laws, vol. 6, pp. 40, 320, 702, 829, also vol. 7, p. 186.

What carrier operates the road of this company? The New York, New Haven & Hartford Railroad Company.

Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
CHARLES N. YEAMANS,	Westfield, Mass.,	January 3, 1894.
GEORGE J. BRUSH,	New Haven, Conn.,	" "
DANIEL TROWBRIDGE,	" "	" "
HORATIO G. KNIGHT,	Easthampton, Mass.,	" "
CHARLES M. POND,	Hartford, Conn.,	" "
EZEKIEL H. TROWBRIDGE,	New Haven, Conn.,	" "
CHARLES P. CLARK,	" "	" "
A. HEATON ROBERTSON,	" "	" "
LUCIUS TUTTLE,	" "	" "

Total number of stockholders at date of last election. 242.

Date of last meeting of stockholders for election of directors. January 4, 1893.

Post-office address of general office. New Haven, Conn.

Post-office address of operating office. New Haven, Conn.

Officers.

Title.	Name.	Location of Office.
President,	CHARLES N. YEAMANS,	New Haven, Conn.
Vice-President,	LUCIUS TUTTLE,	" "
Secretary and Treasurer,	EDWARD A. RAY,	" "

Operated by the officers of the New York, New Haven & Hartford Railroad Co.

Property Operated.

Leased to and operated by the New York, New Haven & Hartford Railroad Co.

Property Leased, or Otherwise Assigned for Operation.

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account (p. 216):

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
New Haven & No'ham.,	New Haven	Conway Jun.,	N. Y., N. H. & H. R.R.	Lease for 99 years.	94.64
Collinsville Branch,	Farmington	N. Hartford,	" "	"	14.09
Williamsburg Branch,	Northamp.	Williamsb'g,	" "	"	7.51
Turners Falls Branch,	So. Deerfd.	Turners Falls.	" "	"	10.07
Holyoke & Westfield,	And the Westfield	leased Holyoke.,	" "	"	10.32
Total Mileage,					136.63

**Contract existing between this Road and the Company by which  
it is operated.**

Leased to the New York, New Haven & Hartford Railroad Company for 99 years from the 1st day of April, 1887, at one per cent. on the capital stock for the first three years, two per cent. for the second three years, three per cent. for the third three years, and four per cent. thereafter, and interest on bonds issued or guaranteed by the lessor ; also all taxes, rates, etc., imposed or assessed.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	50,000	\$100.00	\$5,000,000	*\$2,460,000.00	2 per ct.	\$49,200.00

\* \$2,403,500.00 of above has been surrendered and exchanged for stock of the New York, New Haven & Hartford Railroad Co.

Manner of Payment for Capital Stock.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash (approximate):		
Common, . . . . .	18,820	\$1,882,000.00
Issued for Construction (approximate):		
Common, . . . . .	5,780	578,000.00
Total, . . . . .	24,600	\$2,460,000.00

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
1st Mortgage,	1869	1899	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000
Mortgage and Sinking fund,	1879	1909	1,200,000	1,200,000	1,200,000	1,200,000
Northern Extension,	1881	1911	700,000	700,000	700,000	700,000
Convertible, no mortgage,	1886	1896	700,000	700,000	700,000	700,000
Total,	.....		\$3,900,000	\$3,900,000	\$3,900,000	\$3,900,000



**Funded Debt.—Continued.****INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
7 per cent.	January and July.	\$91,000.00	\$91,000.00
6 per cent.	April and October.	72,000.00	72,000.00
5 per cent.	April and October.	35,000.00	35,000.00
5 per cent.	January and July.	35,000.00	35,000.00
<b>Total,</b>	.....	<b>\$233,000.00</b>	<b>\$233,000.00</b>

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p. 214)	\$3,200,000.00	\$3,200,000.00	\$198,000.00	\$198,000.00
Convertible Bonds,	700,000.00	700,000.00	35,000.00	35,000.00

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash,	\$646.89	Cash Assets,	\$646.89

**Recapitulation.**

For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 214),	*\$2,460,000.00	\$2,460,000.00	126.31	\$19,475.89
Bonds (p. 214),	3,900,000.00	3,900,000.00	126.31	30,876.41
<b>Total, . . .</b>	<b>\$6,360,000.00</b>	<b>\$6,360,000.00</b>	<b>126.31</b>	<b>\$50,352.30</b>

\* \$2,403,500.00 of the above has been exchanged for stock of the New York, New Haven & Hartford Railroad Co.

## \* Cost of Road, Equipment, and Permanent Improvements.

Item.	Total Cost to Oct. 1, 1887.	Total Cost to June 30, 1893.	Cost per Mile.
Construction:			
Right of Way, . . . . .	\$548,131.12	.....	.....
Other Real Estate, . . . . .			
Fences, . . . . .			
Grading, and Bridge and Culvert			
Masonry, . . . . .	1,964,441.10	.....	.....
Bridges and Trestles, . . . . .	261,034.72	.....	.....
Rails, . . . . .	1,408,730.21	.....	.....
Ties, . . . . .			
Other Superstructure, . . . . .			
Buildings, Furniture and Fixtures, . . . . .	211,280.06	.....	.....
Shop Machinery and Tools, . . . . .	62,175.41	.....	.....
Engineering Expenses, . . . . .	114,778.39	.....	.....
Interest during Construction, . . . . .	291,124.30	.....	.....
Wharfing, etc., . . . . .	119,309.56	.....	.....
Sidings and Yard Extensions, . . . . .	213,649.75	.....	.....
Purchase of constructed road, . . . . .	536,932.00	.....	.....
Total Construction, . . . . .	\$5,731,586.62	\$5,731,586.62	\$45,380.00
Equipment:			
Locomotives, . . . . .	317,419.96	.....	.....
Passenger Cars, . . . . .	130,405.59	.....	.....
Sleeping, Parlor, and Dining Cars, . . . . .			
Baggage, Express, and Postal Cars, . . . . .			
Combination Cars, . . . . .	392,351.51	.....	.....
Freight Cars, . . . . .			
Other Equipment, . . . . .	10,253.56	.....	.....
Total Equipment, . . . . .	.....	\$850,430.62	\$6,733.00
Total Cost Construction, Equipment, etc. . . . .	.....	\$6,582,017.24	\$52,113.00

\* Since October, 1887, this company has made no addition to this account.

## Income Account.

Income from Lease of Road:		
Interest on Bonds, . . . . .	\$233,000.00	
Dividend on Stock, . . . . .	49,200.00	
Rent of Holyoke & Westfield Railroad, . . . . .	37,879.20	
Payments to Sinking Fund, . . . . .	15,000.00	
Dividends on Stocks owned (p. 217), . . . . .	855.00	
Total Income, . . . . .		\$335,934.20
Deductions from Income:		
Salaries and Maintenance of Organization, . . . . .	\$719.60	
Interest on Funded Debt accrued (p. 215), . . . . .	233,000.00	
Rents (p. 217), . . . . .	37,829.20	
Total Deductions from Income, . . . . .		271,598.80
Net Income, . . . . .		\$64,335.40

**Income Account.—Continued.**

Dividends, 2 per cent., Common Stock, . . .	\$49,200.00
Surplus from operations of Year ending June 30, 1893,	*\$15,135.40
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report], . . . . .	438,528.73
Surplus on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .	\$453,664.13

\* This includes \$15,000 paid to sinking fund by lessees.

**Stocks Owned.**

Name.	Total Par Value.	Rate.	Income or Dividend Received.	Valuation.
Holyoke & Westfield Railroad,	\$20,000.00	4%	\$800.00	\$20,000.00
Southington Water Company,	1,000.00	2½ & 3%	55.00	1,000.00
Total, . . . . .	\$21,000.00	.....	\$855.00	\$21,000.00

**Rentals Paid.**

Rents paid for lease of road:

Name of Road.	Interest on Bonds Guaranteed.	Cash.	Total.
Holyoke & Westfield R.R.,	\$11,600.00	\$26,279.20	\$37,879.20

**Comparative General Balance Sheet.**

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.
\$5,731,586.62	Cost of Road (p. 216), . . . . .	\$5,731,586.62	.....
850,430.62	Cost of Equipment (p. 216), . . . . .	850,430.62	.....
21,000.00	Stocks owned (p. 217), . . . . .	21,000.00	.....
511.49	Cash and Current Assets (p. 215), . . . . .	646.89	\$135.40
195,000.00	Other Assets:—Sinking Fund, . . . . .	210,000.00	15,000.00
\$6,798,528.73	Grand Total, . . . . .	\$6,813,664.13	\$15,135.40

Comparative General Balance Sheet.—*Continued.*

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.
\$2,460,000.00	} Capital Stock (p. 214), . . . . }	\$2,460,000.00	.....
3,900,000.00		3,900,000.00	.....
438,528.73	Profit and Loss, . . . . .	453,664.13	*\$15,135.40
\$6,798,528.73	Grand Total, . . . . .	\$6,813,664.13	... ..

\* Includes \$15,000 added to sinking fund by lessees.

## Important Changes During the Year.

All changes made by lessees.

## Security for Funded Debt.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.	What Equipment Mort- gaged.	What Income or Securities Mortgag'd.
	From —	To —	Miles.			
First Mortgage Bonds, (\$1,300,000), Farmington	New Haven	Northampton.	76.00 }	\$25,400.85	All.	None.
Consol. Mort. and Sink- ing Fund (\$1,200,000), 1st Mortgage on	2d Mortgage on	New Hartford, above and	14.09 }			
Northern Extension, (\$700,000), Northampton	1st Mortgage on	Williamsburg }	7.51 }	12,295.08	None.	None.
	Northampton	Conway Junc.	18.31 }	24,665.25	None.	None.
	So. Deerfield	Turner's Falls.	10.07 }			

## Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
From —	To —	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
New Haven, Conn.,	Conway Junc., Mass.	94.64	159	24.16	70.48
Northampton, Mass.,	Williamsburg, Mass.	7.51	25	3.20	4.31
So. Deerfield, Mass.,	Turners Falls, Mass.	10.07	16	2.14	7.93
Farmington, Conn.,	N. Hartford, Conn.	14.09	44	7.71	6.38
Holyoke & Westfield,					
Westfield, Mass.,	Holyoke, Mass.	10.32	15	2.05	8.27
Total, . . . . .		136.63	259	39.26	97.37



Characteristics of Road.—*Continued.*

## PROFILE.

Length of Level Line. Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
30.48	57	1,028	37.74	49	800	26.42
.37	3	368	7.14			
4.54	8	81	2.81	5	116	2.72
2.30	12	243	9.33	6	67	2.46
3.14	5	190	3.63	2	225	3.55
40.83	85	1,910	60.65	62	1,208	35.15

## BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, .	31	457	3	8	..	14	..
Iron, .	77	5,013	7	14	..	600	..
Wooden, .	8	545	..	8	..	370	..
Total, .	116	6,015	10	..	..	..	..
Trestles, .	4	939	..	26	..	463	..

## HIGHWAY CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings:			
Bridges, . . . . .	30	14	..
Conduits, . . . . .	1	14	3
Overhead Railway Crossings:			
Bridges, . . . . .	4	14	..

GAUGE OF TRACK — 4 feet, 8½ inches; 126.31 miles.

**Telegraph.**

Owned by another company, but located on property of road making this report:

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
126.31	126.31	Western Union Telegraph Co.	Western Union Telegraph Co.

**Oath.**

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, Charles N. Yeamans, President, and Edward A. Ray, Treasurer, of the New Haven & Northampton Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

CHAS. N. YEAMANS,  
*President.*

EDWARD A. RAY,  
*Treasurer.*

Subscribed and sworn to before me this 20th day of September, 1893.

A. S. MAY,  
*Notary Public.*

# NEW LONDON NORTHERN RAILROAD COMPANY.

## History.

Name of common carrier making this report? New London Northern Railroad Company.

Date of organization? May 31, 1860.

Under laws of what Government, State, or Territory organized? Massachusetts and Connecticut.

What carrier operates the road of this company? Central Vermont Railroad Company.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
ROBERT COIT,	New London, Conn.,	February 6, 1894.
AUGUSTUS BRANDAGEE,	" "	" "
JONATHAN M. HARRIS,	" "	" "
C. A. WILLIAMS,	" "	" "
C. H. OSGOOD,	Norwich, "	" "
JEREMIAH HALSEY,	" "	" "
THOMAS RAMSDELL,	Windham, "	" "
JAMES A. RUMRILL,	Springfield, Mass.,	" "
THOMAS B. EATON,	Worcester, "	" "

Total number of stockholders at date of last election? 322.

Date of last meeting of stockholders for election of directors? Feb. 1, 1893.

Post-office address of general office? New London, Conn.

Post-office address of operating office. St. Albans, Vt.

## Officers.

Title.	Name.	Location of Office.
President,	ROBERT COIT,	New London, Conn.
Secretary,	J. A. SOUTHARD,	" "
Treasurer,	ROBERT COIT,	" "
Attorney, or General Counsel,	AUGUSTUS BRANDAGEE,	" "
General Auditor,	M. M. REYNOLDS,	St. Albans, Vt.
General Superintendent,	F. W. BALDWIN,	" "
Superintendent,	D. MACKENZIE,	New London, Conn.
Superintendent of Telegraph,	M. MAGIFF,	St. Albans, Vt.
Freight Traffic Manager,	L. A. EMERSON,	" "
General Freight Agent,	E. A. CHITTENDEN,	" "
Division Freight Agent,	J. A. SOUTHARD,	New London, Conn.
General Passenger Agent,	S. W. CUMMINGS,	St. Albans, Vt.
Division Passenger Agent,	J. A. SOUTHARD,	New London, Conn.

**Property Operated.**

(Lessee's Account.)

Name of every railroad the operations of which are included in the Income Account (page 225).

Name.	TERMINALS.		Miles of line for each road named.
	From—	To—	
New London Northern,	New London, Conn.,	Miller's Falls, Mass.	100

**Property Leased, or Otherwise Assigned for Operation.**

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account — (p. 225).

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
New London Northern,	N. London, Conn.	Brattleboro, Vt.	Central Vermont,	Lease.	121
Brattleboro & Whitehall,	Brattleboro, Vt.	London-derry, Vt.	Central Vermont,	Lease.	36
Total Mileage, . . . . .					157

**Contract Existing between this Road and the Company by which it is Operated.**

Leased by Central Vermont Railroad Company for ninety-nine years from December 1, 1891, at a rental of \$211,000 per annum.

**Capital Stock.**

(Company's Account.)

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	20,000	\$100	\$2,000,000	\$1,500,000	8 per ct.	\$120,000



**Capital Stock.—Continued.**

Manner of Payment for Capital Stock.	Total Cash Realized.
Issued for Cash: Common, . . . . .	\$340,673.33
Issued for Bonds, . . . . .	1,102,660.00
Issued for Stock of Amherst, Palmer & Belchertown R. R.,	56,666.67
Total, . . . . .	\$1,500,000.00

**Funded Debt.**  
(Company's Account.)

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash realized on amount Issued.
	Date of Issue.	When Due.				
Consolidated,	1880	1910 }	\$1,500,000	\$812,000	\$812,000	\$847,066.65
Consolidated,	1885	1910 }		300,000	300,000	304,530.00
Consolidated,	1892	1910 }		388,000	388,000	393,877.00
Total,	.....	.....	\$1,500,000	\$1,500,000	\$1,500,000	\$1,545,473.65

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
5 per cent.	January and July.	\$40,600.00	\$40,600.00
4 per cent.	January and July.	12,000.00	12,000.00
4 per cent.	January and July.	15,520.00	15,520.00
.....	.....	\$68,120.00	\$68,120.00

**Recapitulation of Funded Debt.**  
(Company's Account.)

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p. 223),	\$1,500,000.00	\$1,500,000.00	\$68,120.00	\$68,120.00

## Current Assets and Liabilities.

(Company's Account.)

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash, . . . . .	\$62,962.24	Audited Vouchers and Ac- counts, . . . . .	\$128.83
		Dividends not called for, . .	1,070.50
		Matured Interest Coupons Unpaid, . . . . .	1,094.34
		Balance — Cash Assets, . .	60,668.57
Total, . . . . .	\$62,962.24	Total, . . . . .	\$62,962.24

## Recapitulation.

For mileage owned by road making this report.

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 222),	\$1,500,000.00	\$1,500,000.00	121	\$12,396.69
Bonds (p. 223), . . .	1,500,000.00	1,500,000.00	121	12,396.69
Total, . . . . .	\$3,000,000.00	\$3,000,000.00	121	\$24,793.38

## Cost of Road, Equipment, and Permanent Improvements.

(Company's Account.)

Item.	EXPENDITURES DURING YEAR.		Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
	Included in Operating Expenses.	Not included in Operating Expenses, charged to Construction or Equipment.			
Construction: Buildings, Furniture and Fixtures, Sidings and yard extensions.	\$1,767.82	\$25,614.79	.....	.....	.....
Total Construction, . . .	\$1,767.82	\$25,614.79	\$2,953,336.72	\$2,978,951.51	\$24,619.43
Total Equipment, . . . .	.....	.....	\$248,420.44	\$248,420.44	\$2,053.06
Total Cost Construction, Equipment, etc., }	\$1,767.82	\$25,614.79	\$3,201,757.16	\$3,227,371.95	\$26,672.49

**Income Account.**

(Lessee's Account.)

Gross Earnings from Operation (p. 226), . . . . .	\$698,055.32	
Less Operating Expenses, . . . . .	482,854.41	
Income from Operation, . . . . .		\$215,200.91
Rent of Buildings, etc., . . . . .	\$18,417.45	
Income from other Sources, . . . . .		18,417.45
Total Income, . . . . .		<u>\$233,618.86</u>
Deductions from Income:		
Interest on Interest-bearing Current Liabilities,		
Accrued, not otherwise provided for, . . . . .	\$224.91	
Rents (p. 228), . . . . .	171,833.34	
Taxes, . . . . .	28,692.94	
Total Deductions from Income, . . . . .		<u>200,751.19</u>
Net Income, . . . . .		<u>\$32,867.17</u>
Surplus from Operations of Year ending June 30, 1893,		<u>\$32,867.17</u>
Surplus on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .		<u>\$32,867.17</u>

**Income Account.**

(Company's Account.)

Income from Lease of Road, . . . . .	\$211,000.00	
Miscellaneous Income, less Expenses (p. 226), . . . . .	931.04	
Total Income, . . . . .		\$211,931.04
Deductions from Income:		
Salaries and Maintenance of Organization, . . . . .	\$3,564.98	
Interest on Funded Debt accrued (p. 223), . . . . .	68,120.00	
Permanent Improvements (p. 224), . . . . .	1,767.82	
Total Deductions from Income, . . . . .		<u>73,452.80</u>
Net Income, . . . . .		<u>\$138,478.24</u>
Dividends, 8 per cent., Common Stock, . . . . .		120,000.00
Surplus from Operations of year ending June 30, 1893,		<u>\$18,478.24</u>
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . . .		\$539,803.41
Additions for Year, . . . . .		<u>18,478.24</u>
Surplus on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .		<u>\$558,281.65</u>

**Earnings from Operation.**

(Lessee's Account.)

Item.	Total Receipts.	Deductions, Account of Repayments, etc.	Actual Earnings.
Passenger: Passenger Revenue,	\$258,278.24		
Less Payments: Tickets Redeemed,		\$123.74	
Excess Fares refunded, . . . . .		2,718.70	
Total Deductions, . . . . .		\$2,842.44	
Total Passenger Revenue, . . . . .			\$255,435.80
Mail, . . . . .			13,459.27
Express, . . . . .			12,152.95
Extra Baggage and Storage, . . . . .			1,447.49
Total Passenger Earnings, . . . . .			\$282,495.51
Freight: Freight Revenue, . . . . .	416,538.54		
Less Repayments:			
Overcharge to shippers, . . . . .		\$978.73	
Total Deductions, . . . . .		\$978.73	
Total Freight Revenue, . . . . .			415,559.81
Total Freight Earnings, . . . . .			\$415,559.81
Total Gross Earnings from Op- } eration — Entire Line, }			\$698,055.32

**Bonds Owned.**

(Company's Account.)

Name.	Total Par Value.	Rate.
Brattleboro & Whitehall R.R. (not issued),	\$150,000.00	6 per cent.

**Miscellaneous Income.**

(Company's Account.)

Item.	Gross Income.	Net Miscellaneous Income.
Wharfage, . . . . .	\$233.30	\$233.30
Interest, . . . . .	697.74	697.74
Total, . . . . .	\$931.04	\$931.04



## Operating Expenses.

(Lessee's Account.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
<b>Maintenance of Way and Structures:</b>			
Repairs of Roadway, . . . . .	\$19,408.80	\$17,915.82	\$37,324.62
Renewals of Rails, . . . . .	1,862.96	1,719.66	3,582.62
Renewals of Ties, . . . . .	6,737.02	6,218.79	12,955.81
Repairs of Bridges and Culverts, . .	5,126.04	4,731.74	9,857.78
Repairs of Fences, Road-crossings, Signs, and Cattle-guards, . . . .	896.72	827.75	1,724.47
Repairs of Buildings, . . . . .	3,265.50	3,013.53	6,279.03
Repairs of Docks and Wharves, . .	264.30	243.98	508.28
Repairs of Telegraph, . . . . .	56.43	52.10	108.53
Other expenses, . . . . .	4,532.93	4,184.35	8,717.28
<b>Total,</b>	<b>\$42,150.70</b>	<b>\$38,907.72</b>	<b>\$81,058.42</b>
<b>Maintenance of Equipment:</b>			
Repairs and renewals of Locomotives, .	14,523.57	13,406.38	27,929.95
Repairs and renewals of Passenger Cars, .	5,563.04	.....	5,563.04
Repairs and renewals of Freight Cars, .	.....	15,435.96	15,435.96
Shop Machinery, Tools, etc., . . . .	744.90	687.61	1,432.51
Other expenses, . . . . .	2,045.48	1,888.14	3,933.62
<b>Total,</b>	<b>\$22,876.99</b>	<b>\$31,418.09</b>	<b>\$54,295.08</b>
<b>Conducting Transportation:</b>			
Wages of Enginemen, Firemen, and Roundhousemen, . . . . .	22,108.17	20,407.55	42,515.72
Fuel for Locomotives, . . . . .	45,618.27	42,109.18	87,727.45
Water-supply for Locomotives, . . . .	812.76	750.25	1,563.01
All other supplies for Locomotives, . .	1,574.93	1,453.79	3,028.72
Wages of other Trainmen, . . . . .	24,265.05	22,398.52	47,663.57
All other train supplies, . . . . .	1,215.76	1,122.25	2,338.01
Wages of Switchmen, Flagmen, and Watchmen, . . . . .	2,221.53	2,050.66	4,272.19
Expense of Telegraph, including Train Dispatchers and Operators, . . . .	2,911.71	2,687.74	5,599.45
Wages of Station Agents, Clerks, and Laborers, . . . . .	40,605.58	37,482.08	78,087.66
Station supplies, . . . . .	2,991.42	2,760.94	5,752.36
Car Mileage — balance, . . . . .	5,768.72	28,843.59	34,612.31
Loss and Damage, . . . . .	.....	4,075.40	4,075.40
Injuries to persons, . . . . .	3,219.60	696.20	3,915.80
Other expenses, . . . . .	7,884.95	7,278.42	15,163.37
<b>Total,</b>	<b>\$161,198.45</b>	<b>\$174,116.57</b>	<b>\$335,315.02</b>

**Operating Expenses. — Continued.**

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses:			
Salaries of Officers, . . . . .	\$2,611.48	\$2,410.60	\$5,022.08
Salaries of Clerks, . . . . .	1,547.26	1,447.48	2,994.74
General Office Expenses and Supplies,	58.75	54.24	112.99
Insurance, . . . . .	785.82	725.39	1,511.21
Legal Expenses, . . . . .	1,207.07	1,114.23	2,321.30
Stationery and Printing, . . . . .	73.15	67.54	140.69
Other General Expenses, . . . . .	43.09	39.79	82.88
Total,	\$6,326.62	\$5,859.27	\$12,185.89
Recapitulation of Expenses:			
Maintenance of Way and Structures,	42,150.70	38,907.72	81,058.42
Maintenance of Equipment, . . . .	22,876.99	31,418.09	54,295.08
Conducting Transportation, . . . .	161,198.45	174,116.57	335,315.02
General Expenses, . . . . .	6,326.62	5,859.27	12,185.89
Grand Total,	\$232,552.76	\$250,301.65	\$482,854.41
Percentage of Expenses to Earnings— Entire Line, }	82	60	69

**Rentals Paid.**

(Lessee's Account.)

Rents paid for lease of road:

Name of Road.	Cash.	Total.
Rental paid by the Central Vermont Railroad Co., as the operating company, to the New London Northern Railroad Co., . . . . .	\$171,833.34	\$171,833.34

## Comparative General Balance Sheet.

(Company's Account.)

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$2,953,336.72	Cost of Road (p. 224), .	\$2,978,951.51	\$25,614.79	.....
248,420.44	Cost of Equipment (p. 224),	248,420.44	.....	.....
150,000.00	Bonds Owned, .	150,000.00	.....	.....
93,170.00	Other Permanent Invest- ments, Steam'b't property,	93,170.00	.....	.....
85,745.37	Cash and Current Assets, .	62,962.24	.....	\$22,783.13
49,684.40	Other Assets: Sundries, . . . . .	27,071.13	.....	22,613.27
\$3,580,356.93	Grand Total, . . . . .	\$3,560,575.32	\$25,614.79	\$45,896.40

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$1,500,000.00	Capital Stock (p. 222), .	\$1,500,000.00	.....	.....
1,500,000.00	Funded Debt (p. 223), .	1,500,000.00	.....	.....
40,553.52	Current Liabilities, . .	2,293.67	.....	\$38,259.85
539,803.41	Profit and Loss, . . .	558,281.65	\$18,478.24	.....
\$3,580,356.93	Grand Total, . . . . .	\$3,560,575.32	\$18,478.24	\$38,259.85

## Contracts, Agreements, etc.

Express Companies.—American—A mileage proportion of a named sum paid to the Central Vermont R. R. Co. for service over the entire system.

Mails.—A mileage proportion of the amount paid the Central Vermont Railroad Company for transportation between New London and Brattleboro.

## Security for Funded Debt.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From —	To —	Miles.	
Consolidated,	New London,	Brattleboro.	121	\$12,396.69

## Employes and Salaries.

(Lessee's Account.)

Class.	Number.	Total Yearly Compensation.	Average Daily Com- pensation.
General Officers, . . . . .	3	\$4,096.39	....
General Office Clerks, . . . . .	2	1,244.67	2.20
Station Agents, . . . . .	243	97,676.31	1.42
Other Station Men, . . . . .			
Enginemen, . . . . .	39	26,738.70	2.42
Firemen, . . . . .	31	13,142.47	1.50
Conductors, . . . . .	34	17,607.08	1.46
Other Trainmen, . . . . .	66	32,080.18	1.72
Machinists, . . . . .	23	12,125.09	1.86
Carpenters, . . . . .	18	10,657.94	2.09
Other Shopmen, . . . . .	35	14,340.13	1.45
Section Foremen, . . . . .	30	11,778.75	1.39
Other Trackmen, . . . . .	94	33,041.43	1.24
Telegraph Operators and Dispatchers, . .	6	2,932.96	1.72
All other Employes and Laborers, . . .	14	4,217.63	1.06
Road Masters, . . . . .	2	1,489.36	2.63
Total (including "General Officers"),	640	283,169.09	....
Distribution of Above :			
General Administration, . . . . .	5	5,341.06	....
Maintenance of Way and Structures, . .	144	56,967.48	....
Maintenance of Equipment, . . . . .	58	26,465.22	....
Conducting Transportation, . . . . .	433	194,395.33	....
Total (including "General Officers"— Entire Line, . . . . .)	640	283,169.09	....



# Passenger, Freight, and Train Mileage.

(Lessee's Account.)

Item.	Tonnage, No. Passengers, No. Trains, Mileage, No. Cars.	REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
No. of passengers carried earning revenue, . . . . .	698,620			
No. of passengers carried one mile, . . . . .	10,454,760			
Average distance carried, . . . . .	14.96 miles			
Total passenger revenue (p. 226), . . . . .		255,435	80	
Average am't received from each passenger, . . . . .			36	5
Average receipts per passenger per mile, . . . . .			02	4
Estimated cost carrying each passenger 1 mile, . . . . .			02	2
Total passenger earnings (p. 226), . . . . .		282,495	51	
Passenger earnings per mile of road, . . . . .		2,824	95	
Passenger earnings per train mile, . . . . .		1	02	1
Freight Traffic :				
No. of tons carried of freight earning revenue, . . . . .	634,142			
No. of tons carried one mile, . . . . .	35,621,250			
Average distance haul of one ton, . . . . .	56 miles			
Total freight revenue (p. 226), . . . . .		415,559	81	
Average am't received for each ton of freight, . . . . .		6	54	
Average receipts per ton per mile, . . . . .		1	16	
Estimated cost of carrying one ton one mile, . . . . .			70	
Freight earnings per mile of road, . . . . .		4,155	59	
Freight earnings per train mile, . . . . .		1	62	7
Passenger and Freight :				
Passenger and freight revenue (p. 226), . . . . .		670,995	61	
Passenger and freight revenue per mile of road, . . . . .		6,709	95	
Passenger and freight earnings (p. 226), . . . . .		698,055	32	
Pass. and freight earnings per mile of road, . . . . .		6,980	55	
Gross earnings from operation (p. 225), . . . . .		698,055	32	
Gross earnings from operation per mile of road, . . . . .		6,980	55	
Gross earnings from operation per train mile, . . . . .		1	31	2
Expenses (p. 227), . . . . .		482,854	41	
Expenses per mile of road, . . . . .		4,828	54	
Income from operation (p. 231), . . . . .		215,200	91	
Income from operation per mile of road, . . . . .		2,152	00	
Train Mileage :				
Miles run by passenger trains, . . . . .	276,566			
Miles run by freight trains, . . . . .	255,394			
Total Mileage Trains Earning Revenue, . . . . .	531,960			
Miles run by switching trains, . . . . .	190,237			
Miles run by construction and other trains, . . . . .	20,665			
Grand Total Train Mileage, . . . . .	742,862			

## Description of Equipment.

(Lessees' Account.)

Item.	Total Number at end of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives:			Westinghouse		
Passenger, . . . .	7	7	Automatic.		
Freight, . . . .	16	9	"		
Switching, . . . .	2	..			
Total, . . . .	25	16			
Cars in Passenger Service:			Westinghouse		
First-class Pass. Cars, .	13	13	Automatic.	13	Miller.
Combination Pass. Cars,	7	7	"	7	"
Baggage, Express, and					
Postal Cars, . . . .	2	2	"	2	"
Total, . . . .	22	22	.....	22	
Cars in Freight Service:					
Box Cars, . . . .	105				
Flat Cars, . . . .	95				
Coal Cars, . . . .	120				
Other Cars, . . . .	15				
Total, . . . .	335				
Cars in Company's Service:					
Gravel Cars, . . . .	4				
Derrick Cars, . . . .	1				
Caboose Cars, . . . .	15				
Total, . . . .	20				
Grand Total Cars, . . .	377				

## Mileage.

## a. MILEAGE OF ROAD OPERATED.

Line in Use.	Line Operated under Lease.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track, . . . .	100.	100.	....	100
Miles of yard track and sidings, .	30.75	30.75	30.75	....
Total Mileage Operated (all tracks),	130.75	130.75	30.75	100

**Mileage — Continued.****b. MILEAGE OF LINE BY STATES AND TERRITORIES.****I. Mileage operated by road making this report:**

State or Territory.	Line Operated under Lease.	Steel Rails.
Connecticut, . . . . .	56	56
Massachusetts, . . . . .	44	44
Total Mileage Operated (single track), . . .	100	100

**II. Mileage owned by road making this report:**

State or Territory.	Line Represented by Capital Stock. Main Line.	Steel Rails.
Connecticut, . . . . .	56	56
Massachusetts, . . . . .	55	55
Vermont, . . . . .	10	10
Total mileage owned (single track), . . .	121	121

**Renewals of Rails and Ties.**

(Lessees' Account.)

**NEW RAILS LAID DURING YEAR.**

Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.
Steel, . . . . .	316	75 lbs.	\$32.00

**NEW TIES LAID DURING YEAR.**

Kind.	Number.	Average Price at Distributing Point.
Chestnut, . . . . .	36,717	35 cents.

**Consumption of Fuel by Locomotives.**

(Lessees' Account.)

Locomotives.	Bituminous Coal—Tons.	Total Fuel Consumed— Tons.	Miles Run.	Average Lbs. Consumed per Mile.
Passenger, . . . .	10,528	10,528	276,566	76
Freight, . . . .	9,942	9,942	255,394	77
Switching, . . . .	7,310	7,310	190,237	76
Construction, . . . .	1,462	1,462	20,665	141
Total, . . . .	29,242	29,242	742,862	
Average cost at distrib. pt.,		\$3.00		

**Accidents to Persons.**

(Lessee's Account.)

**EMPLOYEES.**

Kind of Accident.	Trainmen Injured.	Other Employees Killed.	Other Employees Injured.	Total Killed.	Total Injured.
Coupling and Uncoupling, . .	11	..	..	..	11
Falling from Trains and Engines, . .	3	..	..	..	3
Overhead Obstructions, . .	1	..	..	..	1
Other Train Accidents, . .	..	..	1	..	1
Other Causes, . . . .	3	1	..	1	3
Total, . . . .	18	1	1	1	19

Kind of Accident.	Passen- gers Killed.	Others Trespassing Killed.	Others Trespassing Injured.	Others not Trespassing Injured.	Total Killed.	Total Injured.
Collisions, . . . .	2	3	..	..	5	..
At Highway Crossings, . .	..	..	1	..	..	1
Other Causes, . . . .	..	6	2	1	6	3
Total, . . . .	2	9	3	1	11	4

**OTHER TRAIN ACCIDENTS.**—Freight falling on clerk checking freight in car.

**OTHER CAUSES.**—Walking and sleeping on track, hanging to side of cars and being knocked off, etc.



## Characteristics of Road.

## BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.	
		Feet.	Inches.
Bridges:			
Iron, . . . . .	25	2,341	....
Wooden, . . . . .	73	6,489	....
Total, . . . . .	98	8,830	....

## OVERHEAD CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings:—Bridges, . . . . .	30	4	11½
Trestles, . . . . .	30	..	..
Total, . . . . .	..	..	..
Overhead Railway Crossings:—Bridges, . . . . .	1	19	..

GAUGE OF TRACK—4 feet, 8½ inches; 121 miles.

## Telegraph.

Owned by another company, but located on property of road making this report.

Miles of Line and Wire.	Name of Owner.	Name of Operating Company.
100	Western Union Telegraph Co.	Western Union Telegraph Co.

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF NEW LONDON, } ss.

I, the undersigned, Robert Coit, President and Treasurer of the New London Northern Railroad Company, on my oath do say that the foregoing return has been prepared under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

ROBERT COIT,  
*President and Treasurer.*

Subscribed and sworn to before me this 14th day of September, 1893.

JUSTUS A. SOUTHARD,  
*Notary Public.*

# NEW YORK & NEW ENGLAND RAILROAD COMPANY.

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## History.

Name of common carrier making this report? New York & New England Railroad Company.

Date of organization? April 17, 1873.

Under laws of what Government, State, or Territory organized? States of Massachusetts, Connecticut, Rhode Island, and New York.

If a consolidated company, name the constituent companies.

Reorganization by the holders of the so-called "Berdell Mortgage Bonds" issued by the Boston, Hartford & Erie Railroad Company, in accordance with the terms of the mortgage, each bondholder being entitled to ten shares of stock of the new company for each bond held by him.

Since the organization, the New York & New England Railroad Company has not consolidated with any other Company, but has purchased the Springfield & New London Railroad, and become the owner by foreclosure of a mortgage of the Connecticut Central Railroad.

Memoranda of Laws comprising the organization of the New York & New England Railroad Company and acts amendatory thereto :

## MASSACHUSETTS.

Laws of 1873, chapter 289 ; laws of 1882, chapter 240; laws of 1888, chapters 81 and 301; laws of 1880, chapter 17; laws of 1884, chapter 85; laws of 1889, chapter 348; laws of 1880, chapter 260 ; laws of 1887, chapter 201; laws of 1890, chapter 340.

## CONNECTICUT.

Laws of 1873, vol. 7, p. 466; laws of 1880, vol. 8, p. 353; laws of 1882, vol. 9, p. 676; laws of 1875, vol. 7, p. 913; laws of 1880, vol. 8, p. 411; laws of 1884, vol. 9, p. 999 ; laws of 1877, vol. 8, pp. 67 and 72 ; laws of 1881, vol. 9, p. 64 ; laws of 1889, vol. 9, p. 1107.

## RHODE ISLAND.

Laws of 1873, p. 13 ; laws of 1882, p. 223 ; laws of 1884, p. 204.

Date and authority for each consolidation ?.

Answered above.

If a reorganized company, give name of original corporation, and refer to laws under which it was organized:

Answered above.

What carrier operates the road of this company? New York & New England Railroad Company.

## Organization.

Names of Directors.	Post-Office Address.	Expiration of Term.
ARCHIBALD A. McLEOD,	Boston, Mass.	March 13, 1894.
THOMAS C. PLATT,	New York, N. Y.	" "
JOSEPH F. SINNOTT,	Philadelphia, Pa.	" "
HENRY A. DUPONT,	Wilmington, Del.	" "
CHESTER W. CHAPIN,	New York, N. Y.	" "
SAMUEL HEILNER,	Philadelphia, Pa.	" "
CHARLEMAGNE TOWER, JR.,	Philadelphia, Pa.	" "
JOHN W. DOANE,	Chicago, Ill.	" "
JAMES ARMSTRONG,	New York, N. Y.	" "
GEORGE H. EADE, JR.,	Philadelphia, Pa.	" "
SPENCER ERVIN,	Philadelphia, Pa.	" "
ARTHUR SEWALL,	Portland, Me.	" "
JOSEPH HENSLER, JR.,	Jersey City, N. J.	" "
CHARLES E. GROSS,	Hartford, Conn.	" "
F. H. PRINCE,	Boston, Mass.	" "
MARSDEN J. PERRY,	Providence, R. I.	" "
B. F. VAUGHAN,	Providence, R. I.	" "
ARTHUR BROCK,	Lebanon, Pa.	" "
D. S. PLUME,	Waterbury, Conn.	" "

Total number of stockholders at date of last election? 1444.

Date of last meeting of stockholders for election of directors? March 14, 1893.

Post-office address of general office: 180 Summer Street, Boston, Mass.

Post-office address of operating office: 180 Summer Street, Boston, Mass.

## Officers.

Title.	Name.	Location of Office.
President,	ARCHIBALD A. McLEOD,	180 Summer St., Boston.
Secretary,	JAS. W. PERKINS,	" "
Treasurer,	GEO. B. PHIPPEN,	" "
General Counsel,	MOORFIELD STOREY,	" "
Assistant Counsel,	FRANK A. FARNUM,	" "
Purchasing Agent,	EDWARD MAHLER,	" "
Auditor,	W. H. DUDLEY,	" "
Paymaster,	I. W. FOSTER,	" "
Chief Engineer,	L. B. BIDWELL,	" "
General Superintendent,	I. D. BARTON,	" "
Division Superintendent,	F. E. DEWEY,	224 Federal St., "
Division Superintendent,	H. J. QUIGG,	East Hartford, Conn.
Division Superintendent,	G. W. OFFUTT,	Providence, R. I.
Master Mechanic,	T. KEARSLEY,	Norwood Central, Mass.
Supt. of Telegraph,	G. L. LANG,	180 Summer St., Boston.
General Traffic Manager,	GEO. F. RANDOLPH,	" "
General Freight Agent,	C. H. GOODRICH,	" "
General Passenger Agent,	W. R. BABCOCK,	" "



*Officers.—Continued.*

Title.	Name.	Location of Office.
General Baggage Agent.	GEO. F. INGALLS,	Depot, Foot Sum. St., Bost.
Division Freight Agent,	C. M. BOWMAN,	Hartford, Conn.
Division Freight Agent,	GEO. A. HARRIS,	Norwich, Conn.

**Property Operated.**

Name of every Railroad the operations of which are included in the Income Account

1. Railroad Line represented by Capital Stock: A. Main Line. B. Branches and Spurs.  
 3. Line operated under Lease for specified sum. 4. Line operated under Contract, or where the Rent is contingent upon earnings or other considerations. 5. Line operated under Trackage Rights.

Name.	TERMINALS.		Miles of Line for each Road Named.	Miles of Line for each Class of Roads Named.
	From—	To—		
1. A. New York & N. England,	Boston, Wicopee,	Hopewell Junct., Fishkill Landing,	214.98 1.71.	216.69
B. New York & N. England,	Providence, Cook St., Newton, East Thompson, East Hartford, Melrose, Dedham Junct., Islington, Dorrance St. Tr'k, Freight Branch,	Willimantic, Woonsocket, Southbridge, Jc. B. & A., Spfld., West St., R'ville, Dedham, Dedham, Providence, Hartford,	58.32 28.67 17.36 27.48 7.22 1.53 2.00 .62 .67	
3. Norwich & Worcester, . Rhode Island & Mass., . Rockville, . Providence & Springfield, Woonsocket & Pascoag, . Meriden, Waterbury & C. R.,	Allyn's Point, Franklin, Vernon, Providence, Woonsocket, Waterbury,	Worcester, Valley Falls, Rockville, Douglas Junc., Harrisville, Cromwell,	66.16 13.59 4.43 28.18 9.50 30.34	152.20
4. Milford & Woonsocket, . Milford, Franklin & Prov.,	Bellingham, Franklin,	Ashland, Bellingham,	15.32 4.65	19.97
5. Newburgh, Dutchess & Ct., New York, Prov. & Boston, Boston & Albany,	Hopewell Junct., Junc. N.Y. & N.E. Junc. N.Y. & N.E.	Wicopee, Depot, Provid'ce, Depot, Springfld.,	10.95 .10 1.41	12.46
Total Mileage Operated, . . . . .				545.19

The Rhode Island & Massachusetts Branch has been remeasured and found to be 13.59 miles long instead of 13.60 miles long.

The Providence & Springfield Railroad has been extended from Pascoag, R. I., to Douglas Junction, Mass., a distance of 6.84 miles.

The Meriden, Waterbury & Connecticut River Railroad was leased to this Company for ninety-nine years from September 1, 1892, and has been operated by this Company since that date. Length, 30.34 miles.

Name of all Coal, Bridge, Canal, or other properties, the earnings and expenses of which affect the General Balance Sheet — page 249.

Name.	Character of Business.	Title. (Owned, Leased, etc.)	State or Territory.
Boston Harbor Transfer,	Transfer,	Owned jointly with the Boston & Maine Railroad Company.	Massachusetts.

### Capital Stock.

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock:				
Common, . . . . .	200,000	\$100.00	\$20,000,000	\$19,811,000
“Berdell” Bonds				
Convertible,	50,000	100.00	5,000,000	189,000
Preferred, . . . . .				3,817,600
Total, . . . . .	248,110	\$100.00	\$25,000,000	\$23,817,600

Manner of Payment for Capital Stock.	Number of Shares Issued during Year.	Cash realized on Amt. Issued during Year.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash: Preferred,	1,526	\$152,600	38,176	*\$3,995,436
Issued for Reorganization: Common, . . . . .	130	.....	†198,110	.....
Total, . . . . .	1,656	\$152,600	236,286	\$3,995,436

\* All issued for cash.

† NOTE.—Under the terms of the Boston, Hartford & Erie Railroad “Berdell” Mortgage, under which this company obtained possession, the “Berdell” bonds were to be exchanged for stock of the new company, ten shares of stock for each \$1,000 bond, of which 19,811 bonds have been converted, and 189 bonds are still outstanding, exchangeable for the 1890 shares of common stock, unissued, held for the purpose of retiring these remaining bonds.

## Funded Debt.

## 1. MORTGAGE BONDS.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
1st Mortgage,	1876	1905	\$6,000,000	\$6,000,000	\$6,000,000	\$5,367,117.24
1st Mortgage,	1876	1905	4,000,000	4,000,000	4,000,000	4,141,979.86
2d Mortgage,	1882	1902	5,000,000	5,000,000	5,000,000	4,877,993.93
Bost. Term., } 1st Mort., }	1889	1939	1,500,000	1,386,000	1,386,000	1,316,700.00
Totals, . . .	....	....	\$16,500,000	\$16,386,000	\$16,386,000	\$15,703,791.03

## 2. MISCELLANEOUS OBLIGATIONS.

a Mort. Notes:						
Curtis Wharf,	1887	1888	60,000.00	60,000.00	60,000.00	} Property acquired.
Curtis Wharf,	1888	1893	80,000.00	80,000.00	80,000.00	
Lands at Springfield,	1888	1893	17,500.00	17,500.00	17,500.00	
Hartford,	1875	1875	13,800.00	13,800.00	13,800.00	
Hartford,	1876	1887	3,000.00	3,000.00	3,000.00	
Hartford,	1893	demand	5,000.00	5,000.00	5,000.00	
b Cont. Liab:						
Piper Wharf,	1887	1894	200,000.00	200,000.00	200,000.00	}
Equipment purchased of M & W R Co. }	1887	1893	11,312.50	11,312.50	11,312.50	
1,000 Fr't cars,	1890	'93 to '97	460,910.00	460,910.00	410,910.00	
Total, . . .	....	....	851,522.50	851,522.50	801,522.50	
Grand Total, \$	....	....	17,351,522.50	17,237,522.50	17,187,522.50	15,703,791.03

## INTEREST ON MORTGAGE BONDS.

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
7 per cent.	January and July, . . .	\$420,000.00	\$420,000.00
6 per cent.	January and July, . . .	240,000.00	240,000.00
6 per cent.	February and August, . . .	300,000.00	300,000.00
4 per cent.	April and October, . . .	55,440.00	55,440.00
.....	.....	\$1,015,440.00	\$1,015,440.00

## INTEREST ON MISCELLANEOUS OBLIGATIONS.

4½ per cent.	February and August, . . .	2,700.00	*2,700.00
5 per cent.	April and October, . . .	4,000.00	.....
5 per cent.	January and July, . . .	729.18	875.00
6 per cent.	January and July, . . .	690.00	†828.00
5 per cent.	January and July, . . .	125.00	†150.00
5 per cent.	February and August, . . .	83.34	.....
5½ and 6 p. c.	Monthly, . . .	11,333.34	11,250.00
6 per cent.	May and November, . . .	678.75	1,018.12
Various.	Monthly, . . .	61,310.54	61,310.54
.....	.....	81,650.15	78,131.66
.....	.....	\$1,097,090.15	\$1,093,571.66

\* Assumed by this Company, October 1, 1888.

† Assumed by this Company, January 19, 1892.

**Funded Debt.—Continued.****B STATEMENT OF AMOUNT.—DEFERRED PAYMENTS.**

Class of Debt.	PRINCIPAL.		INTEREST.	
	Original Amount.	Amount Outstanding.	Amount Accrued during Year.	Amount Paid during Year.
Miscellaneous Obligations (p. 241), }	\$851,522.50	\$801,522.50	\$81,650.15	\$78,131.66

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mtge. Bds. (p. 241),	\$16,386,000.00	\$16,386,000.00	\$1,015,440.00	\$1,015 440 00
Miscellaneous Obligations (p. 241),	851,522.50	801,522.50	81,650.15	78,131.66
Total, . . .	\$17,237,522.50	\$17,187,522.50	\$1,097,090.15	\$1,093,571.66

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash, . . . . .	\$259,648.83	Loans and Bills payable, *	\$388,410.10
Due from Agents, . . .	546,650.58	Equipment Notes, . . .	27,580.75
Net Traffic Balances due from other Companies, . .	212,408 04	Audited Vouchers and Accounts, . . . . .	451,147.99
Due from Solvent Companies and Individuals, . .	668,056.36	Wages and Salaries, . . .	94,866 68
Current Liabilities, . . .	378,955.63	Net Traffic Balances due to other Companies, . .	715,093.86
		Matured Interest Coupons unpaid, including Coupons due July 1, . . .	334,759.00
		Rents due July 1, . . .	53,699.08
		Miscellaneous, . . . . .	161.98
Total, . . . . .	\$2,065,719.44	Total, . . . . .	\$2,065,719.44

Materials and Supplies on hand, \$297,513.48.

\* Includes notes amounting to \$250,000.00 given for bonds of the Providence & Springfield Railroad Company.



## Recapitulation.

a. For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 240),	\$23,817,600.00	\$23,817,600.00	360.56	\$66,057.24
Bonds (p. 241), . .	17,187,522.50	17,187,522.50	360.56	47,668.97
Current Liabilities, .	2,065,719.44	2,065,719.44	360.56	5,729.19
Total, . . . .	\$43,070,841.94	\$43,070,841.94	360.56	\$119,455.40

b. For mileage operated by road making this report (trackage rights excluded), the operations of which are included in the Income Account (p. 245):

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	AMT. PER MILE OF ROAD.	
					Miles.	Amount.
New York & New Eng.,	\$23,817,600.00	\$17,187,522.50	\$2,065,719.44	\$43,070,841.94	360.56	\$119,455.40
Norwich & Worcester,	2,772,200.00	400,000.00	407,884.33	3,580,084.33	66.16	54,112.52
Rh. Ild. & Mass. in Mass.,	100,000.00	.....	.....	100,000.00	6.52	15,337.42
Rh. Ild. & Mass. in R. I.,	180,000.00	.....	.....	180,000.00	7.07	25,459.69
Rockville,	108,750.00	.....	16,900.00	125,650.00	4.43	28,363.43
Milford & Woonsocket,	148,600.00	60,000.00	.....	208,600.00	15.32	13,616.10
Milford, Frank. & Prov.,	100,000.00	10,000.00	640.00	110,640.00	4.65	23,789.24
Providence & Springfield,	517,450.00	500,000.00	.....	1,017,450.00	28.18	36,105.39
Woonsocket & Pascoag,	200,000.00	100,000.00	.....	300,000.00	9.50	31,578.95
M., W. & Conn. River,	484,000.00	450,000.00	.....	934,000.00	30.34	30,784.44
Total, . . . .	\$28,428,600.00	\$18,707,522.50	\$2,491,143.77	\$49,627,266.27	532.73	93,156.51

## Cost of Road, Equipment, and Permanent Improvements.

Item.	Expenditures during year not included in Operating Expenses, charged to Construction or Equipment.	Total Cost to June 30, 1892.	‡ Estimated Total Cost to June 30, 1893.	Cost Per Mile.
Construction:				
Right of Way, . . . . .	\$8,574.50	.....	.....	.....
Other Real Estate, . . . . .	25,000.00	.....	.....	.....
Fences, . . . . .	276.89	.....	.....	.....
Grading, and Bridge and Culvert Masonry, . . . . .	13,077.15	.....	.....	.....
Bridges and Trestles, . . . . .	2,009.55	.....	.....	.....
Rails, . . . . .	18,667.62	.....	.....	.....
Ties, . . . . .	7,763.11	.....	.....	.....
Other Superstructure, . . . . .	210.23	.....	.....	.....
Buildings, Furniture, and Fixtures, . . . . .	9,402.33	.....	.....	.....
Shop Machinery and Tools, . . . . .	704.51	.....	.....	.....
* Engineering Expenses, . . . . .	Cr. 1,730.49	.....	.....	.....
Telegraph Line, . . . . .	Cr. 3,887.96	.....	.....	.....
Sidings and Yard Extensions, . . . . .	15,130.54	.....	.....	.....
Terminal Facilities and Elevators, . . . . .	17,778.90	.....	.....	.....
† Other items, . . . . .	213,713.58	.....	.....	.....
Total Construction, . . . . .	\$326,690.46	\$34,675,518.69	\$35,002,209.15	\$97,077.35
Equipment:				
Locomotives, . . . . .	266.65	.....	.....	.....
Passenger Cars, . . . . .	1,155.73	.....	.....	.....
Other Cars of all classes, . . . . .	144.32	.....	.....	.....
Total Equipment, . . . . .	\$1,566.70	\$5,333,496.34	\$5,335,063.04	\$14,796.60
Total Cost Construction, } Equipment, etc., }	\$328,257.16	\$40,009,015.03	\$40,337,272.19	\$111,873.95

\* The credit results from transfer to other accounts.

† Includes a charge for Passenger Car Heating Plants, \$1,851.05, and an amount of \$211,862.53 charged to property accounts in correction of former credits in 1882, 1883, and 1886, on account of the sale of land at Hartford, Conn., the sale of a portion of the Woonsocket Division, and the sale of land at Brookline, Mass.

‡ This amount represents the cost of the road to this Company, but not the cost of constructing it. It is based on the amount of the "Berdell" bonds and mortgage (\$20,000,000), which bonds, after foreclosure, became convertible into the stock of this Company, and upon the sums laid out by this Company since that foreclosure in taking up underlying liens and completing and extending the road. The actual cost of constructing the road to the former owners, and, since acquiring its title, to this Company, is largely in excess of the cost of the road to this Company as above returned, as has been ascertained, pursuant to the laws of the State of Connecticut, by the President, Treasurer, and an engineer, approved by the Railroad Commissioners of the State of Connecticut in February, 1892, as an engineer to ascertain the cost of the construction of the road, the amount thus ascertained being between \$45,000,000 and \$50,000,000, exclusive of equipment, and considerably over \$50,000,000 including equipment.

## Income Account.

Gross Earnings from Operation, . . . . .	\$6,413,061.55	
Less Operating Expenses, . . . . .	4,512,288.52	
Income from Operation, . . . . .		\$1,900,773.03
Income from other sources, . . . . .		6,035.56
Total Income, . . . . .		<u>\$1,906,808.59</u>

## Deductions from Income:

Interest on Funded Debt accrued (p. 241), . . . . .	\$1,097,090.15	
Interest on Interest-bearing Current Liabilities accrued, not otherwise provided for, . . . . .	27,664.87	
Rents, . . . . .	485,251.72	
Taxes, . . . . .	249,003.44	
Total Deductions from Income, . . . . .		1,859,010.18
Net Income, . . . . .		<u>\$47,798.41</u>
Surplus from Operations of Year ending June 30, 1893,		\$47,798.41
Deficit on June 30, 1892, [from "General Balance Sheet," 1892 Report], . . . . .		\$832,455.78
		<u>\$784,657.37</u>
* Additions for Year, . . . . .		59,630.14
Deficit on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .		<u>\$844,287.51</u>

* Add old claims and worthless balances written off, . . . . .	\$49,433.40
Investment in the Capital Stock of the New England Terminal Company, and expenditures in connection therewith, . . . . .	340,612.07
Payment of freight car mileage for which the charges accrued between December 1, 1890, and February 1, 1892, . . . . .	84,722.20
	<u>\$474,767.67</u>

Deduct amount received from the Providence & Springfield Railroad Company in consideration of terminal facilities in Providence, . . . . .	\$75,000.00
Amounts charged to property accounts in correction of former credits in 1882, 1883, and 1886, on account of the sale of land at Hartford, of the sale of a portion of the Woonsocket Division, and of the sale of land in Brookline, Mass.; the gross receipts, \$493,366.80, having been credited to the property accounts, whereas there was a resulting profit from the sales amounting to . . . . .	211,862.53
Amount of Dividend No. 13 on preferred stock, charged to Profit and Loss June 30, 1892, and now credited to that account, as payment of the dividend has been enjoined and the liability has become contingent, pending the action of the Court, . . . . .	123,275.00 — 415,137.53
	<u>\$59,630.14</u>

## Earnings from Operation.

Item.	Total Receipts.	Deductions, Acct. of Repay- ments, etc.	Actual Earnings.
Passenger:			
Passenger Revenue, . . . . .	\$2,141,279.38		
Less Repayments: . . . . .			
Tickets redeemed, . . . . .		\$4,647.15	
Excess Fares refunded, . . . . .		16,408.20	
Total Deductions, . . . . .		\$21,055.35	
Total Passenger Revenue, . . . . .			\$2,120,224.03
Mail, . . . . .			61,561.35
Express, . . . . .			206,373.41
Extra Baggage and Storage, . . . . .			16,397.44
Other items, . . . . .			28,102.35
Total Passenger Earnings, . . . . .			\$2,432,658.58
Freight:			
Freight Revenue, . . . . .	3,853,847.19		
Less Repayments:			
Overcharge to Shippers, . . . . .		48,172.58	
Total Deductions, . . . . .		\$48,172.50	
Total Freight Revenue, . . . . .			3,805,674.61
Elevators, . . . . .			1,536.72
Other items, . . . . .			86,490.99
Total Freight Earnings, . . . . .			3,893,702.32
Total Passenger and Freight Earnings, . . . . .			\$6,326,360.90
Other Earnings from Operation:			
Switching Charges—Balance, . . . . .			24,276.86
Rents not otherwise provided for, . . . . .			49,303.03
Other sources, . . . . .			13,120.76
Total other Earnings, . . . . .			\$86,700.65
Total Gross Earnings from Operation, } Entire Line, }			\$6,413,061.55

## Miscellaneous Income.

Item.	Net Miscellaneous Income.
Boston Harbor Transfer, . . . . .	\$6,035.56



## Operating Expenses.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway, . . . . .	\$156,185.83	\$190,847.53	\$347,033.36
Renewal of Rails, . . . . .	12,404.64	15,157.55	27,562.19
Renewal of Ties, . . . . .	30,510.63	37,281.73	67,792.36
Repairs of Bridges and Culverts, . .	16,194.49	19,788.46	35,982.95
Repairs of Fences, Road-crossings, Signs, and Cattle Guards, . . . .	7,213.40	8,814.24	16,027.64
Repairs of Buildings, . . . . .	19,594.59	22,231.86	41,826.45
Repairs of Docks and Wharves, . . .	.....	344.72	344.72
Repairs of Telegraph, . . . . .	2.52	3.09	5.61
Total, . . . . .	\$242,106.10	\$294,469.18	\$536,575.28
Maintenance of Equipment :			
Repairs and renewals of Locomotives, .	72,285.42	160,612.13	232,897.55
Repairs and renewals of Passeng'r Cars, .	86,747.06	.....	86,747.06
Repairs and renewals of Freight Cars, .	.....	202,425.03	202,425.03
Repairs and renewals of Ferry-boats, Tugs, Floats, and Barges, . . . . .	.....	15,110.37	15,110.37
Shop Machinery, Tools, etc., . . . .	9,597.85	11,727.88	21,325.73
Other Expenses, . . . . .	9,288.48	11,349.83	20,638.31
Total, . . . . .	\$177,918.81	\$401,225.24	\$579,144.05
Conducting Transportation :			
Wages of Enginemen, Firemen, and Roundhousemen, . . . . .	146,155.37	303,413.67	449,569.04
Fuel for Locomotives, . . . . .	191,231.13	454,475.26	645,706.39
Water-supply for Locomotives, . . . .	16,970.27	20,736.42	37,706.69
All other supplies for Locomotives, . .	7,172.28	10,508.13	17,680.41
Wages of other Trainmen, . . . . .	140,343.97	309,872.63	450,216.60
All other train supplies, . . . . .	31,844.36	47,461.01	79,305.37
Wages of Switchmen, Flagmen, and Watchmen, . . . . .	42,372.06	183,156.77	225,528.83
Expense of Telegraph, including Train Dispatchers and Operators, . . . . .	30,123.79	49,609.67	79,733.46
Wages of Station Agents, Clerks, and Laborers, . . . . .	147,490.63	430,134.59	577,625.22
Station supplies, . . . . .	22,195.94	40,024.91	62,220.85
Car Mileage—Balance, . . . . .	4,375.48	116,934.62	121,310.10
Loss and Damage, . . . . .	6,139.43	41,876.63	48,016.06
Injuries to persons, . . . . .	17,087.48	30,473.00	47,560.48
Barges, Floats, Tugs, Ferry-boats, ex- penses of, including Wages, Fuel, and supplies, . . . . .	.....	44,460.21	44,460.21
Total, . . . . .	\$803,502.19	\$2,083,137.52	\$2,886,639.71

## Operating Expenses.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers, . . . . .	\$46,313.56	\$61,058.15	\$107,371.71
Salaries of Clerks, . . . . .	32,707.92	69,575.62	102,283.54
General Office expenses and supplies, . . . . .	5,748.20	7,023.88	12,772.08
Agencies, including salaries and rent, . . . . .	2,799.91	16,214.55	19,014.46
Advertising, . . . . .	20,120.75	1,752.11	21,872.86
Insurance, . . . . .	13,658.46	16,689.64	30,348.10
Expense of Fast Freight Lines, . . . . .	.....	13,353.16	13,353.16
Expense of Traffic Associations, . . . . .	595.31	2,225.52	2,820.83
Expense of Stock Yards and Elevators, . . . . .	.....	676.02	676.02
Rents not otherwise provided for, . . . . .	44,072.03	10,171.88	54,243.91
Legal Expenses, . . . . .	37,972.94	46,400.12	84,373.06
Stationery and Printing, . . . . .	23,345.73	37,454.02	60,799.75
Total,	\$227,334.81	\$282,594.67	\$509,929.48
Recapitulation of Expenses :			
Maintenance of Way and Structures, . . . . .	242,106.10	294,469.18	536,575.28
Maintenance of Equipment, . . . . .	177,918.81	401,225.24	579,144.05
Conducting Transportation, . . . . .	803,502.19	2,083,137.52	2,886,639.71
General Expenses, . . . . .	227,334.81	282,594.67	509,929.48
Grand Total, . . . . .	\$1,450,861.91	\$3,061,426.61	\$4,512,288.52
Perct'ge Expenses to Earnings, ent. line,	60.00	78.00	70.36

## Rentals Paid.

Rents paid for lease of road:

Name of Road.	Cash.	Total.
Norwich & Worcester, . . . . .	\$261,912.31	\$261,912.31
Providence & Springfield, . . . . .	56,602.88	56,602.88
Woonsocket & Pascoag, . . . . .	15,000.00	15,000.00
Rhode Island & Massachusetts, . . . . .	20,000.00	20,000.00
Boston & Albany, . . . . .	5,000.00	5,000.00
Rockville, . . . . .	4,563.75	4,563.75
Milford & Woonsocket, . . . . .	7,091.16	7,091.16
Milford, Franklin & Providence, . . . . .	4,727.46	4,727.46
Newburgh, Dutchess & Connecticut, . . . . .	51,013.37	51,013.37
New London Northern, . . . . .	42,390.00	42,390.00
Meriden, Waterbury & Conn. River, . . . . .	16,950.79	16,950.79
Total Rents, . . . . .	\$485,251.72	\$485,251.72

## Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$34,675,518.69	Cost of Road (p. 244), . .	\$35,002,209.15	\$326,690.46	.....
5,333,496.34	Cost of Equipment (p. 244), . .	5,335,063.04	1,566.70	.....
99,900.00	Stocks owned,* . . . . .	.....	.....	\$99,900.00
1,238,290.32	Cash and Current Assets, . . . . .	1,686,763.81	448,473.49	.....
467,082.06	Other Assets:	.....	.....	.....
88,011.73	Materials and Supplies, . . . . .	297,513.48	.....	169,568.58
.....	Debit balances, being taxes and expenditures undistributed and unadjusted accounts, . . . . .	150,982.03	62,970.30	.....
.....	Dividend No. 13 on preferred stock, payable May 1, 1892, payment enjoined, . . . . .	128,275.00	128,275.00	.....
832,455.78	Profit and loss, . . . . .	844,287.51	11,831.73	.....
\$42,734,754.92	Grand Total, . . . . .	\$43,445,094.02	\$710,339.10	.....

\* The amount of this company's investment in the capital stock of the New England Terminal Company, \$99,900.00, is included in the sum of \$340,612.07 charged to Profit and Loss, as shown on page 245 of this report.

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$23,665,000.00	Capital Stock (p. 241), . . . . .	\$23,817,600.00	\$152,600.00	.....
17,218,835.00	Funded Debt (p. 241), . . . . .	17,187,522.50	.....	\$31,312.50
61,422.99	Supplies transferred from Norwich & Worcester R.R., . . . . .	61,422.99	.....	.....
1,640,664.47	Current liabilities, . . . . .	2,065,719.44	425,054.97	.....
140,910.00	Accrued interest on funded debt not yet payable, . . . . .	141,122.02	212.02	.....
7,922.46	Accrued Rentals not yet payable, . . . . .	20,533.69	12,611.23	.....
.....	Credit Balances,* . . . . .	151,173.38	151,173.38	.....
\$42,734,754.92	Grand Total, . . . . .	\$43,445,094.02	\$710,339.10	.....

\* Payment of Dividend No. 13 on preferred stock enjoined, action pending. Liability considered as contingent, not current, and included under credit balances.

### Important Changes during the Year.

The Providence & Springfield Railroad, leased by this Company, has been extended from Pascoag, R. I., to Douglas Junction, Mass., a distance of 6.84 miles.

The Meriden, Waterbury & Connecticut River Railroad has been leased by this Company for ninety-nine years from September 1, 1892.

1,526 shares of preferred stock have been issued, and 130 shares of common stock have been given in exchange for 13 "Berdell" bonds.

The funded debt has been decreased \$31,312.50 during the year; \$25,000 was paid under the contract for 1,000 freight cars, and \$11,312.50 was paid on account of the contract for the purchase of the equipment of the Milford & Woonsocket Railroad; while a real estate mortgage for \$5,000 was assumed by this Company for land at Hartford, Conn., to be used for freight station purposes.

The investment of \$99,900 in the capital stock of the New England Terminal Company has been charged to Profit and Loss.

### Contracts, Agreements, etc.

The United States Express Company operates over all the mileage owned and leased by the railroad company, on the basis of an agreed rental.

There are no mail contracts, but the Company carries mails under the governmental laws and regulations.

The Pullman Palace Car Company runs sleeping cars on a mileage basis; parlor cars are run, some of which are owned by this Company and some by the New York, New Haven & Hartford Railroad Company, the receipts and expenses being divided on a mileage basis.

This Company has arrangements with its connections for the joint interchange of traffic, with fast freight lines and railroads for through billing, and railroads generally, as to through rates and tickets.

The Western Union Telegraph Company operate all telegraphic wires and transmit the messages of this Company free.

### Security for Funded Debt (page 241).

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage per Mile of Line.	What Equipment Mortgaged.
<b>1. Mortgage Bonds:</b>				
1st Mortgage, . . .	Entire Line owned.	360.56	\$27,734.64	
2d Mortgage, . . .	Entire Line owned.	360.56	13,867.32	
Boston Terminal, 1st Mortgage, . . .	Boston Terminal.			
<b>2. Miscel. Obligations:</b>				
A. Mortgage Notes,	Boston Terminal.			
Curtis Wharf, . . .				
Lands at Springfield & Hartford,	Freight Stat'n Gr'd.			
B. Contract L'ilities:				
Piper Wharf, . . .	Boston Terminal.			
Equipment purchased of M. & W. R. R. Co., }				Equipment purchased.
1,000 Freight Cars, . . .				
				do. do.



**Employees and Salaries.—Entire Line.**

Class.	Num- ber.	Total No. of Days Worked.	Total Yearly Com- pensation.	Av. Daily Compen- sation.
General Officers, . . . . .	31	9,734	\$95,755.86	\$9.84
General Office Clerks, . . . . .	115	35,083	76,682.51	2.18
Station Agents, . . . . .	189	67,716	107,591.50	1.59
Other Station Men, . . . . .	696	230,763	348,284.92	1.50
Enginemen, . . . . .	213	65,104	249,583.12	3.83
Firemen, . . . . .	223	68,224	157,612.72	2.31
Conductors, . . . . .	175	56,459	163,417.35	2.89
Other Trainmen, . . . . .	547	174,828	324,286.67	1.85
Machinists, . . . . .	181	53,040	112,901.88	2.13
Carpenters, . . . . .	136	38,949	98,449.16	2.52
Other Shopmen, . . . . .	296	83,795	161,530.46	1.93
Section Foremen, . . . . .	114	40,264	66,688.56	1.66
Other Trackmen, . . . . .	718	204,984	275,507.89	1.35
Switchmen, Flagmen, and Watchmen, .	322	112,640	177,066.29	1.57
Telegraph Operators and Dispatchers, .	112	40,426	68,792.11	1.70
Employees—account Floating Equipment,	17	6,188	15,544.54	2.51
All other Employees and Laborers, . .	491	159,211	324,125.52	2.03
<b>Total (including "General Officers"),</b>	<b>4,576</b>	<b>1,447,408</b>	<b>\$2,823,821.06</b>	<b>\$1.95</b>
<b>Less "General Officers," . . . . .</b>	<b>31</b>	<b>9,734</b>	<b>95,755.86</b>	<b>9.84</b>
<b>Total (excluding "General Officers"),</b>	<b>4,545</b>	<b>1,437,674</b>	<b>\$2,728,065.20</b>	<b>\$1.89</b>
<b>Distribution of Above :</b>				
General Administration, . . . . .	146	44,817	172,438.37	3.84
Maintenance of Way and Structures, .	1,154	357,888	519,262.74	1.45
Maintenance of Equipment, . . . . .	613	175,784	372,881.50	2.12
Conducting Transportation, . . . . .	2,663	868,919	1,759,238.45	2.03
<b>Total (including "General Officers"),</b>	<b>4,576</b>	<b>1,447,408</b>	<b>\$2,823,821.06</b>	<b>\$1.95</b>
<b>Less "General Officers," . . . . .</b>	<b>31</b>	<b>9,734</b>	<b>95,755.86</b>	<b>9.84</b>
<b>Total (excluding "General Officers"),</b>	<b>4,545</b>	<b>1,437,674</b>	<b>\$2,728,065.20</b>	<b>\$1.89</b>

## Passenger, Freight, and Train Mileage.

Item.	Tonnage, No. Passengers, No. Trains, Mileage. No. Cars.	REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
<b>Passenger Traffic:</b>				
No. of passengers carried earning a revenue, . . . . .	9,124,510			
Number of passengers carried one mile, . . . . .	105,460,090			
Average distance carried, . . . . .	11.558			
Total passenger revenue (p. 246), . . . . .		2,120,224	03	
Amount received from each passenger, . . . . .			23	237
Average receipts per passenger per mile, . . . . .			02	010
Est. cost of carrying each passenger one mile, . . . . .			01	376
Total passenger earnings (p. 246), . . . . .		2,432,658	58	
Passenger earnings per mile of road, . . . . .		4,462	04	
Passenger earnings per train mile, . . . . .		1	12	550
<b>Freight Traffic:</b>				
No. of tons carried of freight earning revenue, . . . . .	3,549,011			
Number of tons carried one mile, . . . . .	339,694,348			
Average distance haul of one ton, . . . . .	95.72			
Total freight revenue (p. 246), . . . . .		3,805,674	61	
Av. amount received for each ton of freight, . . . . .			1	07
Average receipts per ton per mile, . . . . .			01	120
Estimated cost of carrying one ton one mile, . . . . .				901
Total freight earnings (p. 246), . . . . .		3,893,702	32	
Freight earnings per mile of road, . . . . .		7,141	92	
Freight earnings per train mile, . . . . .		1	47	370
<b>Passenger and Freight:</b>				
Passenger and freight revenue (p. 246), . . . . .		5,925,898	64	
Pass. and freight revenue per mile of road, . . . . .		10,869	42	
Passenger and freight earnings (p. 246), . . . . .		6,326,360	90	
Pass. and freight earnings per mile of road, . . . . .		11,603	96	
Gross earnings from operation (p. 246), . . . . .		6,413,061	55	
Gross earnings from operation per m. of road, . . . . .		11,762	98	
Gross earnings from operation per train mile, . . . . .		1	33	483
Expenses (p. 248), . . . . .		4,512,288	52	
Expenses per mile of road, . . . . .		8,276	54	
Income from operation (p. 245), . . . . .		1,900,773	03	
Income from operation per mile of road, . . . . .		3,486	44	
<b>Train Mileage:</b>				
Miles run by passenger trains, . . . . .	2,149,423			
Miles run by freight trains, . . . . .	2,603,609			
Miles run by mixed trains, . . . . .	51,345			
Total Mileage Trains Earning Revenue, . . . . .	4,804,377			
*Miles run by switching trains, . . . . .	1,173,095			
Miles run by construction and other trains, . . . . .	154,162			
Grand Total Train Mileage, . . . . .	6,131,634			
Mileage of loaded freight cars—North or East, . . . . .	21,075,632			
Mileage of loaded freight cars—South or West, . . . . .	11,855,043			
Mileage of empty freight cars—North or East, . . . . .	3,463,785			
Mileage of empty freight cars—South or West, . . . . .	8,906,877			
Average number of freight cars in train, . . . . .	17.07			
Average number of loaded cars in train, . . . . .	12.39			
Average number of empty cars in train, . . . . .	4.68			
Average number of tons of freight in train, . . . . .	128.57			
Av. No. of tons of freight in each loaded car, . . . . .	10.38			

\* Six miles per hour allowed for switching trains.

## Freight Traffic Movement.

Item.	Freight Originating on this Road.	Freight Received from Con- necting Roads and other Carriers.	TOTAL FREIGHT TONNAGE.	
	Whole Tons.	Whole Tons.	Whole Tons.	Per Ct.
Products of Agriculture:				
Grain, . . . . .	30,116	155,822	185,938	5.23
Flour, . . . . .	3,418	75,800	79,218	2.20
Other Mill Products, . . . . .	25,449	46,600	72,049	2.13
Hay, . . . . .	9,505	54,510	64,015	1.80
Tobacco, . . . . .	1,047	1,184	2,231	.06
Cotton, . . . . .	7,005	52,646	59,651	1.68
Fruit and Vegetables, . . . . .	11,958	12,144	24,102	.67
Products of Animals:				
Live Stock, . . . . .	4,909	2,889	7,798	.21
Dressed Meats, . . . . .	1,476	13,930	15,406	.43
Other Packing-house Products, . . . . .	901	2,387	3,288	.09
Poultry, Game, and Fish, . . . . .	1,441	1,755	3,196	.09
Wool, . . . . .	19,034	12,240	31,274	.88
Hides and Leather, . . . . .	10,818	50,364	61,182	1.72
Products of Mines:				
Anthracite Coal, . . . . .	163,801	547,246	711,047	20.03
Bituminous Coal, . . . . .	205,167	74,383	279,550	7.87
Coke, . . . . .	2,954	7,856	10,810	.30
Ores, . . . . .	6,108	447	6,555	.18
Stone, Sand, and other like articles, . . . . .	68,742	26,720	95,462	2.68
Products of Forest:				
Lumber, . . . . .	76,167	158,537	234,704	6.61
Other Forest Products, . . . . .	44,985	15,503	60,488	1.70
Manufactures:				
Petroleum and other Oils, . . . . .	21,161	41,678	62,839	1.77
Sugar, . . . . .	17,553	1,097	18,650	.52
Naval Stores, . . . . .	119	206	325	.01
Iron, Pig and Bloom, . . . . .	10,040	21,767	31,807	.89
Iron and Steel Rails, . . . . .	1,297	28,325	29,622	.83
Other Castings and Machinery, . . . . .	41,415	35,431	76,846	2.26
Bar and Sheet Metal, . . . . .	9,039	46,991	56,030	1.55
Cement, Brick, and Lime, . . . . .	68,814	13,741	82,555	2.32
Agricultural Implements, . . . . .	1,271	692	1,963	.05
Wagons, Carriages, Tools, etc., . . . . .	4,016	2,331	6,347	.17
Wines, Liquors, and Beers, . . . . .	6,412	14,595	21,007	.59
Household Goods and Furniture, . . . . .	5,229	4,903	10,132	.28
Merchandise, . . . . .	727,222	409,908	1,137,130	32.04
Miscellaneous:				
Other commodities not mentioned above, . . . . .	5,678	116	5,794	.16
Total Tonnage— Entire Line, . . . . .	1,614,267	1,934,744	3,549,011	100.00

## Description of Equipment.

Item.	Number added during Year.	Total Number at end of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Locomotives:						
Passenger, . . . . .		73	73	Westinghouse.	27	Wilkins.
Freight, . . . . .		86	86	"		
Switching, . . . . .		23	23	"		
Leased, . . . . .	5	30	30	24 West., 5 N. Y., 1 Eames.		
Total, . . . . .	5	212	212		27	
Cars in Passenger Service:						
First-Class Passenger Cars, . . . . .		165	165	Westinghouse.	6	Mil. & Jan.
Combination Passenger Cars, . . . . .		45	45	"	159	Miller.
Dining Cars, . . . . .		3	3	"	45	"
Parlor Cars, . . . . .		5	5	"	3	"
B'ge, Exp., and Postal Cars, . . . . .		27	27	"	5	"
Other Cars in Pass. service, . . . . .		2	2	"	2	Mil. & Jan.
					25	Miller.
					2	"
Total, . . . . .		247	247		247	
Cars in Freight Service:						
Box Cars, . . . . .		2222	164	Westinghouse.	100	Gould.
Flat Cars, . . . . .		469			112	Dowling.
Stock Cars, . . . . .					64	Miller.
Coal Cars, . . . . .		2070			513	Safford.
Other Cars, "Dumps," . . . . .		470			400	"
Total, . . . . .		5231	164		1189	
Cars in Company's Service:						
Gravel Cars, . . . . .		10				
Derrick Cars, . . . . .		16	13	Westinghouse.	4	Miller.
Caboose Cars, . . . . .		78				
Other road Cars, . . . . .		2	2	Westinghouse.	2	"
Total, . . . . .		106	15		6	
Total Cars owned, . . . . .		5584	426		1442	
Cars Leased:						
Passenger, . . . . .	10	39	39	Westinghouse.	39	Miller.
Freight, . . . . .	154	1006			84	Whit'more.
Derrick, . . . . .	1	1				
Grand Total Cars, . . . . .	165	6630	39		1565	



## Mileage.

## a. MILEAGE OF ROAD OPERATED.

Line in Use.	LINE REPRESENTED BY CAPITAL STOCK.		Line Operated under Lease.	Line Operated under Contract, etc.	Line Operated under Trackage Rights.	Total Mileage Operated.	RAILS.	
	Main Line.	Branches and spurs.					Iron.	Steel.
Miles of single track,	216.69	143.87	152.20	19.97	12.46	545.19	7.22	525.51
Miles of second track,	112.68	1.36	.....	.....	.....	114.04	.....	114.04
Miles of yard track and sidings, . . . . .	118.62	35.52	40.81	3.94	.....	193.89	144.21	54.68
Total mileage operated (all tracks), . . . .	447.99	180.75	193.01	23.91	12.46	858.12	151.43	694.23

## b. MILEAGE OF LINE BY STATES AND TERRITORIES.

## 1. Mileage operated by road making this report:

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Line Operated under Lease.	Line Operated under Contract, etc.	Total Mileage excluding Trackage Rights.	Line Operated under Trackage Rights.	RAILS.	
	Main Line.	Branches and spurs.					Iron.	Steel.
Massachusetts, . . .	52.05	50.45	*26.39	19.97	143.86	1.41	.....	148.86
Rhode Island, . . .	.....	28.05	†43.12	.....	71.17	.10	.....	71.17
Connecticut, . . .	134.17	65.37	‡82.69	.....	282.23	.....	7.22	275.01
New York, . . . .	30.47	.....	.....	.....	30.47	10.95	.....	30.47
Total mileage operated (single track), . . .	216.69	143.87	152.20	19.97	532.73	12.46	7.22	525.51

## 2. Mileage owned by road making this report :

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage excluding Trackage Rights.	RAILS.	
	Main Line.	Branches and Spurs.		Iron.	Steel.
Massachusetts, . . . . .	52.05	50.45	102.50	.....	102.50
Rhode Island, . . . . .	.....	28.05	28.05	.....	28.05
Connecticut, . . . . .	134.17	65.37	199.54	7.22	192.32
New York, . . . . .	30.47	.....	30.47	.....	30.47
Total Mileage owned (single track),	216.69	143.87	360.56	7.22	353.34

\*The Providence & Springfield Railroad has been extended from Pascoag, R. I., to Douglas Junction, Mass., a distance of 6.84 miles, of which 1.75 miles are in Massachusetts and 5.09 miles are in Rhode Island.

†The Rhode Island & Massachusetts Branch, in Rhode Island, has been remeasured and found to be 13.59 miles long instead of 13.60 miles long.

‡The Meriden, Waterbury & Connecticut River Railroad, 30.34 miles long, running between Waterbury and Cromwell in the State of Connecticut, was leased to this Company for 99 years from September 1, 1892.

## Renewals of Rails and Ties.

## NEW RAILS LAID DURING YEAR.

Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.
Steel, . . . . .	2,001.89	79 lbs.	\$29.55
	2,073.98	75 "	31.40
	89	66 "	35.00
Total Steel, . . . . .	4,076.76	....	\$30.49

## NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
Oak and Chestnut, 1st class, . . . . .	73,664	45 cts.
Oak and Chestnut, 2d class, . . . . .	84,043	40 "
Oak and Chestnut, 3d class, . . . . .	20,622	22 "
Total, . . . . .	178,329	40 cts.

## Consumption of Fuel by Locomotives.

Locomotives.	Bituminous Coal—Tons.	Total Fuel Consumed—Tons.	Miles Run. [See page 252.]	Average Pounds Consumed per Mile.
Passenger, . . . . .	71,704.38	71,704.38	2,162,259	66.32
Freight, . . . . .	138,033.82	138,033.82	2,642,118	104.49
Switching, . . . . .	33,050.80	33,050.80	1,173,095	56.34
Construction, . . . . .	2,986.60	2,986.60	154,162	38.75
Total, . . . . .	245,775.60	245,775.60	6,131,634	80.16
Average cost at distr. point,	\$2.67			

## Accidents to Persons — State of Connecticut.

## EMPLOYEES.

Kind of Accident.	Train- men Killed.	Train- men Injured.	Switchmen, Flagmen, and Watchmen Injured.	Other Employees Injured.	Total Killed.	Total Injured.
Coupling and uncoupling, Falling from trains and en- gines, . . . . .	..	82	7	2	..	91
Overhead obstructions, . . . . .	2	45	1	..	2	46
Collisions, . . . . .	3	3	..	..	3	3
Derailments, . . . . .	2	15	..	..	2	15
At stations, . . . . .	..	7	..	..	..	7
Other causes, . . . . .	..	..	..	1	..	1
	1	..	..	1	1	1
Total, . . . . .	8	152	8	4	8	164

## OTHERS.

Kind of Accident.	Trespassing Killed.	Trespassing Injured.	Not Trespassing Killed.	Not Trespassing Injured.	Total Killed.	Total Injured.
At highway crossings, . . . . .	..	..	2	4	2	4
At stations, . . . . .	..	..	..	..	..	..
Other causes, . . . . .	12	26	..	..	12	26
Total, . . . . .	12	26	2	4	14	30

## OTHER CAUSES.

Kind of Accident.	EMPLOYEES.				OTHERS.			
	Train- men Killed.	Others Injured.	Total.		Trespassing.		Total.	
			Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Walking or standing on track, . . . . .	1	1	1	1	8	15	8	15
Stealing rides, . . . . .	..	..	..	..	4	11	4	11
Total, . . . . .	1	1	1	1	12	26	12	26

## Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.			PRO FILE.			DESCENDING GRADES.		
From—	To—	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.	No.	Sum of Ascents. Feet.	Aggregate length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate length of Descending Grades. Miles.
Boston	Hopewell Junc.,	214.98	343	85.00	129.98	36	379.5	93.28	37	355.9	86.79
Wicopee Junction	Fishkill-on-Hud.,	1.71	6	.97	.74	.....	.....	.....	1	6.3	1.15
Dedham Junction	Dedham,	1.53	4	.76	.77	.....	.....	.....	.....	.....	.....
Ipslinton	Dedham,	2.00	1	.25	1.75	.....	.....	.....	.....	.....	.....
Hartford Freight Branch,	Branch,	.67	3	.32	.35	.....	.....	.....	.....	.....	.....
Providence	Willimantic,	58.32	59	25.99	32.33	5	73.7	24.56	4	51.5	23.00
Dorrence St. Trk.	Providence,	.62	5	.10	.52	.....	.....	.....	.....	.....	.....
Cook St., Newton	Woonsocket,	28.67	30	6.96	21.71	10	42.3	11.69	1	4	.24
Franklin	Valley Falls,	13.59	29	4.71	8.88	6	8.4	2.70	10	37.2	10.07
East Thompson	Southbridge,	17.36	39	7.74	9.62	6	20.2	6.09	6	29.2	8.07
Worcester	Allyn's Point,	66.16	107	22.48	43.68	14	14.3	11.72	5	19.7	5.09
Vernon	Rockville,	4.43	10	1.49	2.94	1	14.6	2.66	16	62.4	40.66
Springfield	East Hartford,	27.48	27	4.94	22.54	15	20.5	7.38	1	7.4	1.69
Melrose	West St., R'ville,	7.22	13	2.01	5.21	3	20.8	3.38	15	32.7	14.79
Asbland	Franklin,	19.97	50	8.00	11.97	.....	.....	.....	3	4.5	1.11
Junc. B. & A.R.R.	Depot, Springfield,	1.41	1	.10	1.31	1	10.0	1.41	.....	.....	.....
Providence	Douglas Junc.,	28.18	74	13.47	14.71	.....	.....	.....	.....	.....	.....
Woonsocket	Harrisville,	9.50	19	3.55	5.95	.....	.....	.....	.....	.....	.....
Waterbury	Cromwell,	30.34	72	14.56	15.78	24	77.9	12.68	20	56.0	11.43
Total,		534.14	892	203.40	330.74	121	682.2	177.55	119	663.2	204.09

\* This company has no profile of the branches from Dedham Junction to Dedham, from Islington to Dedham, from Ashland to Franklin, from Providence to Douglas Junction, or from Woonsocket to Harrisville.



Characteristics of Road.—*Continued.*

## BRIDGES, TRETTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, . . .	48	955	..	6	..	50	..
Iron, . . .	119	9,296	8	20	..	1,122	..
Wooden, . .	147	11,411	4	10	..	481	6
Total, . .	314	21,663	..	....	..	....	..
Trestles, . .	86	18,517	7	25	..	2,944	..
Tunnels, . .	5	1,307	..	176	..	340	..

## OVERHEAD CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings :			
Bridges, . . . . .	68	14	1
Trestles, . . . . .	46	14	4
Total, . . . . .	114	..	..
Overhead Railway Crossings :			
Bridges, . . . . .	6	14	1
Tunnels, . . . . .	5	16	..

GAUGE OF TRACK—4 feet, 8 $\frac{1}{2}$  inches; 534.14 miles.

## Telegraph.

Owned by another company, but located on property of road making this report:

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
526.10	4,424.00	West. Union Tel. Co.	West. Union Tel. Co.

## Car Mileage.

Individuals, Co-operative Fast Freight Lines, and Stock Companies, to which the company making this report pays mileage for the use of cars:

American Tank Line.	Kansas City Dressed Beef Line.
Anglo-American Provision Co.	Libby, McNeill & Libby Refrig. Line.
American Refrigerator Co.	Lipton Refrigerator Line.
Armour Refrigerator Co.	Loyal Hanna Coal and Coke Co.
Armes' Palace Horse Car Co.	Merchants Despatch Transportation Co.
Bosshardt Wilson Co.	Midland Line.
Boston Live Stock Express Co.	Manhattan Oil Co.
Berwind White Coal Mining Co.	Mather Stock Car Co.
Bond, Lunham & Co.	Morris & Co. Refrigerator Co.
Burton Stock Car Co.	Meriam Morgan Paraffine Co.
Blue Line.	National Oil Co.
California Fruit Transportation Co.	National Linseed Oil Co.
Canada Cattle Car Co.	Narragansett Brewing Co.
Chicago Refrigerator Car Co.	National Refrigerator Transit Co.
Cudahy Milwaukee Refrigerator Line.	Northwest Despatch Fast Freight Line.
Cudahy Refrigerator Line.	National Despatch Line.
Cornplanter Refining Co.	Peavey Grain Line.
Century Oil Co.	Peerless Refining Co.
Cold Blast Transportation Co.	Pittsburgh Plate Glass Co.
Canada Southern Line.	Producers Oil Co.
Canadian Pacific Despatch.	Provision Dealers Despatch.
Cutting Car Co.	Pennsylvania & Delaware Oil Co.
Crescent Oil Co.	Pond, W. P. & Co.
Doed, J. Son's Dressed Beef Co.	Red Line Transit Co.
Excelsior Palace Horse Car Co.	Schofield, Shurman & Teagle.
Empire Oil Works.	Sioux City Dressed Beef Line.
Ellsworth, J. W. & Co.	Sun Oil Line Co.
Empire Line.	St. Louis Refrigerator Car Co.
Erie Despatch.	Street's Stable Car Line.
Great Eastern Line.	St. Joseph Packing Transportation Co.
Gossman Palace Horse Car Co.	Swift's Refrigerator Transportation Co.
Goodell Refrigerator Co.	Southern Iron Car Co.
Genesee Oil Works.	Southern Despatch Lumber Co.
Havens, C. B. & Co.	Terre Haute Brewing Co.
Healey Refrigerator Line.	Tide Water Oil Co.
Hammond Refrigerator Line.	Union Tank Line.
International Oil Works.	Union Refrigerator Transit Co.
International Packing Co.	Valley Oil Company.
Iron Car Express Coal Co.	White Line Transit Co.
J. E. B. Furniture Line.	White Star Transportation Co.
Keystone Palace Horse Car Co.	Wells, T. E. & Co.
Kingan's Refrigerator Line.	Wicks, H. K. & Co.

## Oath.

STATE OF MASSACHUSETTS, }  
COUNTY OF SUFFOLK, } ss.

We, the undersigned, A. A. McLeod, President, and W. H. Dudley, Auditor, of the New York & New England Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

A. A. McLEOD,  
*President.*

W. H. DUDLEY,  
*Auditor.*

Subscribed and sworn to before me this 15th day of September, 1893.

FRANK A. FARNHAM,  
*Justice of the Peace.*

# NEW YORK, NEW HAVEN & HARTFORD RAILROAD COMPANY.

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## History.

The name of the common carrier making this report is The New York, New Haven & Hartford Railroad Company.

The date of organization was August 6, 1872.

The Company was organized in the first instance under the laws of the States of Connecticut and Massachusetts (Conn. Public Acts, 1871, chap. 129; do. chap. 144; Mass. Laws, 1872, chap. 171; Conn. Special Acts, 1873, vol. i, p. 6; Laws of N. Y., 1874, chap. 362; Special Laws of Conn., vol. vii, p. 688; do. vol. viii, p. 411; do. vol. ix, p. 1026; do. p. 1032; do. vol. x, p. 21; do. p. 80; do. p. 115; do. p. 212; do. p. 509; do. p. 1118; do. p. 1298; do. p. 1359; do. p. 1349; Resolution of Conn. General Assembly, approved March 2, 1893; see also Resolutions of R. I. General Assembly, passed April 26, 1892; Feb. 24, 1893; and April 25, 1893; Acts and Resolutions of Mass., 1893, chap. 112).

The New York, New Haven & Hartford Railroad Company was formed by a consolidation August 6, 1872, of the Hartford & New Haven Railroad Company with the New York & New Haven Railroad Company. The Hartford & New Haven Railroad Company prior to the last-mentioned date had been consolidated with the Hartford & Springfield Corporation in 1847; with the Branch Company in 1850; with the Middletown Railroad Company in 1850; with the Middletown Extension Railroad Company in 1861; with the New Britain & Middletown Railroad Company in 1868; and with the Windsor Locks & Suffield Railroad Company in 1871 (Private Laws of Conn., vol. i, p. 1002; do. p. 1005; do. vol. iv, p. 898; do. p. 899; do. p. 890; do. p. 901; do. p. 967; do. p. 903; Mass. Special Laws, vol. ix, p. 448; Conn. Private Acts, 1855, p. 202; Private Laws of Conn., vol. v, p. 32; Mass. Special Laws, vol. xii, p. 582; Special Laws of Conn., vol. vi, p. 578; do. p. 791; Private Laws of Conn., vol. i, p. 1006; Conn. Private Acts, 1838, p. —; Private Laws of Conn., vol. iv, p. 916; do. p. 917; do. 918; do. p. 919; Conn. Private Acts, 1841, p. 82; Private Laws of Conn., vol. iv, p. 919; Mass. Special Laws, vol. viii, p. 116; Mass. Special Laws, vol. viii, p. 208; do. p. 321; do. p. 420; do. p. 809; Private Laws of Conn., vol. iv, p. 874; do. p. 934; do. p. 938; Incorporating the Middletown Extension Railroad Company, approved June 4, 1857; Conn. Private Acts, 1859, p. 152; Private Laws of Conn., vol. iv, p. 954; do. p. 957; Conn. Private Acts, 1858, p. 126; Conn. Private Acts, 1860, p. 97; do. 1862, p. 96; do. 1864, p. 158; Private Laws of Conn., vol. v, p. 570; Special Laws of Conn., vol. vi, p. 323; do. p. 594; Private Laws of Conn., vol. iv, p. 1020; do. p. 1025; Laws of N. Y., 1846, chap. —; Private Laws of Conn., vol. iv, p. 1025; Laws of N. Y., 1848, chap. —; Private Laws of Conn., vol. iv, p. 1029; do. p. 1031; Conn. Private Acts, 1866, p. 194; Special Laws of Conn., vol. vi, p. 88; do. p. 137; do. p. 226; do. p. 319; do. p. 716; do. p. 677; do. p. 834; Conn. Public Acts, 1871, chap. 152).



At the time of the consolidation of the Hartford & New Haven Railroad Company with the New York & New Haven Railroad Company the former company had a proprietary interest in the company for erecting and supporting a toll bridge from New Haven to East Haven (Private Laws of Conn., vol. i, p. 241; do. p. 242; do. p. 243; do. vol. iii, p. 283; Special Laws of Conn., vol. vi, p. 182; do. vol. viii, p. 310; do. vol. x, p. 79); and the New York & New Haven Railroad Company was the lessee in perpetuity of the railroad of the Shore Line Railway, which was a successor in 1864 to the New Haven, New London & Stonington Railroad Company, which was formed by a merger in 1856, of the New Haven & New London Railroad Company with the New London & Stonington Railroad Company (Private Laws of Conn., vol. iv, pp. 967, 973; U. S. Statutes at Large, vol. ix; Private Acts, chap. xlvii, p. 165; Private Laws of Conn., vol. iv, pp. 974, 975, 978, 979; Private Laws of Conn., vol. v, pp. 47, 205, 227, 243; Conn. Private Acts, 1859, p. 151; Private Laws of Conn., vol. v, pp. 590, 766; Special Laws of Conn., vol. iv, pp. 327, 394; U. S. Statutes at Large, vol. xv, chap. 38, p. 273; Special Laws of Conn., vol. vi, pp. 906, 919; do. vol. viii, p. 364).

The New York, New Haven & Hartford Railroad Company consolidated with the Stamford & New Canaan Railroad Company, successor of The New Canaan Railroad Company, on the first day of October, 1890 (Special Laws of Conn., vol. vi, pp. 22, 10; Conn. Special Acts, 1876, p. 66; Special Laws of Conn., vol. viii, p. 196; Conn. Special Acts, 1880, p. 75; Special Laws of Conn., vol. ix, p. 682; Special Laws of Conn., vol. ix, p. 859; Public Acts of Conn., 1883, chap. 130; General Statutes of Conn., sec. 3471; Public Acts of Conn., 1889, chap. 92).

With The Hartford & Connecticut Valley Railroad Company, successor of the Connecticut Valley Railroad Company, on the 21st day of December, 1892 (Special Laws of Conn., vol. vi, pp. 398, 548, 613, 652, 658; Conn. Private Acts, 1870, p. 196; Special Laws of Conn., vol. vii, pp. 63, 378, 555, 634; Conn. Public Acts, 1874, chap. lxiv; Special Laws of Conn., vol. vii, pp. 810, 929; do. vol. viii, pp. 39, 83; Conn. Special Acts, 1877, p. 122; Special Laws of Conn., vol. viii, p. 223; Conn. Special Acts, 1879, p. 5; Special Laws of Conn., vol. viii, p. 348; Mass. Special Laws, vol. xiv, p. 660; Special Laws of Conn., vol. viii, p. 420; Conn. Special Acts, 1880, p. 115; Special Laws of Conn., vol. ix, p. 203; Mass. Special Laws, vol. xv, p. 53; Special Laws of Conn., vol. ix, pp. 614, 679; General Statutes of Conn., sec. 3471; Public Acts of Conn., 1889, chap. 92).

With The New York, Providence & Boston Railroad Company on the 13th day of February, 1893 (Private Laws of Conn., vol. i, pp. 1019, 1023; do. vol. iv, pp. 1032, 1033, 975, 978, 979; do. vol. v, pp. 47, 205, 227, 243; Conn. Private Acts, 1859, p. 151; Private Laws of Conn., vol. v, p. 592; Special Laws of Conn., vol. vi, p. 374; do. vol. vii, p. 938; do. vol. viii, p. 4; do. vol. ix, pp. 28, 503; do. vol. x, pp. 115, 1150; R. I. Acts and Resolutions, June, 1832, p. 67; do. June, 1833, p. 10; do. 1836, p. 3; do. January, 1840, p. 83; Mass. Special Laws, vol. viii, pp. 179, 221; R. I. Acts and Resolutions, January, 1841, p. 8; Mass. Special Laws, vol. 8, p. 307; R. I. Acts and Resolutions, October, 1846, p. 86; do. May, 1847, p. 57; do. October, 1847, p. 48; do. January, 1848, p. 32; do. June, 1851, p. 44; do. January, 1852, p. 5; do. January, 1853, p. 262; do. May, 1858, p. 51; do. January, 1862, p. 239; do. June, 1864, p. 32; do. January, 1865, p. 261; do. May, 1868, p. 27; do. June, 1868, p. 42; do. January, 1872, p. 184; do. January, 1873, p. 206; do. May, 1874, p. 12; do. January, 1875, p. 261; do. May, 1875, p. 42; do. January, 1876, p. 191; do. January, 1880, p. 142; do. January, 1881, pp. 174, 178; do. January, 1885, p. 197; Passed by R. I. General Assembly, March

23, 1888; Passed by R. I. General Assembly, June 1, 1888; Passed by R. I. General Assembly, June 13, 1888; Passed by R. I. General Assembly, May Session, May, 1891; Passed by R. I. General Assembly, January Session, 1891; Passed by R. I. General Assembly, January Session, 1892; Passed by R. I. General Assembly, January Session, 1893).

At the time of the consolidation of the New York, New Haven & Hartford Railroad Company with the New York, Providence & Boston Railroad Company, the latter Company was the lessee of the railroad of the Pawtuxet Valley Railroad Company for 99 years from July 1, 1884 (See Acts passed by R. I. General Assembly in 1868, 1869, 1872, 1873, 1874, 1875, 1877, 1879, 1880, 1881).

The New York, New Haven & Hartford Railroad Company is now (September 1, 1893,) the direct lessee —

(1) For 99 years from the first day of October, 1873, of the railroad of the Harlem River & Port Chester Railroad Company (Laws of N. Y., 1866, chap. 763; do. 1869, chap. 722; do. 1871, chap. 605; do. 1873, chap. 48).

(2) For 99 years from the 30th day of September, 1882, of the railroad of the Boston & New York Air Line Railroad Company, successor in 1875 of the New Haven, Middletown & Willimantic Railroad Company, and lessee in 1878, for 999 years, of the railroad of the Colchester Railroad Company (Special Laws of Conn., vol. vi, pp. 286, 329, 462; U. S. Statutes at large, vol. xv, chap. xxxvii, p. 272; Special Laws of Conn., vol. vi, p. 577; do. p. 613; do. p. 652; do. p. 794; do. p. 807; do. vol. vii, pp. 2, 31, 145, 273; Conn. Special Acts, 1872, p. 190; Special Laws of Conn., vol. vii, pp. 543, 554, 555; Conn. Public Acts, 1874, chap. lxiv, p. 217; Special Laws of Conn., vol. vii, p. 767; Conn. Special Acts, 1874, p. 271; Special Laws of Conn., vol. vii, p. 885; Conn. Special Acts, 1875, p. 178; Special Laws of Conn., vol. viii, pp. 17, 228; Conn. Special Acts, 1879, p. 137; Special Laws of Conn., vol. ix, p. 1009; Special Laws of Conn., vol. viii, p. 34).

(3) For 99 years from the first day of April, 1887, of the railroad of the New Haven & Northampton Company, successor (1836) of the President, Directors and Company of the Farmington Canal and of the Hampshire & Hampden Canal Company; assignee (1859) of the lessee of the Farmington Valley Railroad; consolidated (1862) with the Hampshire & Hampden Railroad Corporation — a corporation formed by the merger (1853) of the Hampshire Railroad Company with the Northampton & Westfield Railroad Company; and lessee (1870) in perpetuity of the Holyoke & Westfield Railroad (Conn. Private Laws, vol. i, pp. 300, 318, 307, 308; Mass. Special Laws, vol. vi, pp. 40, 320, 702, 829; do. vol. vii, pp. 186, 675, 691; Conn. Private Laws, vol. i, p. 308; do. vol. iii, p. 294; do. vol. iv, pp. 1380, 1384, 888; Conn. Private Acts, 1847, p. 104; Conn. Private Laws, vol. lv, pp. 982, 983, 984, 985, 893, 895, 896; Conn. Private Acts, 1858, p. 125; do. 1862, p. 94; do. 1867, p. 275; Mass. Special Laws, vol. ix, pp. 546, 561, 767, 773; do. vol. x, pp. 552, 742, 922; do. vol. xi, p. 286; Conn. Private Laws, vol. v, p. 460; Mass. Special Laws, vol. ii, p. 653; Conn. Private Laws, vol. v, p. 724; Mass. Special Laws, vol. xii, p. 25; Conn. Special Laws, vol. vi, pp. 217, 303; Mass. Special Laws, vol. xii, p. 736; Conn. Special Laws, vol. vi, p. 733; Mass. Special Laws, vol. xii, p. 822; Conn. Private Acts, 1870, p. 146; do. p. 198; Conn. Special Laws, vol. vii, p. 267; Mass. Special Laws, vol. xiii, p. 484; Conn. Special Laws, vol. vii, p. 871; Conn. Special Acts, 1875, p. 130; Conn. Special Laws, vol.

vii, p. 987; Conn. Special Acts, 1876, p. 119; Mass. Special Laws, vol. xiv, p. 386; Conn. Special Laws, vol. viii, p. 296, Mass. Special Laws, vol. xiv, p. 485; Conn. Special Laws, vol. viii, pp. 419, 420; Mass. Special Laws, vol. xiv, p. 623; do. vol. xv, pp. 677, 1430; Mass. Special Laws, vol. xii, p. 804; do. vol. xiii, p. 558; Acts and Resolutions of Mass., 1893, chap. 72).

(4) For 99 years from the first day of April, 1887, of the railroad of the Naugatuck Railroad Company, including its proprietary interest in the Watertown & Waterbury Railroad (Private Laws of Conn., vol. iv, pp. 944, 949, 950, 951, 952; do. vol. v, pp. 75, 753; Special Laws of Conn., vol. vi, pp. 8, 9, 23, 293, 709, 874, 647; do. vol. x, p. 1118).

(5) For 99 years from July 1, 1892, of the railroad of the Providence & Worcester Railroad Company (R. I. Acts, passed 1844, 1845, 1848, 1849, 1851, 1852, 1870, 1879, 1888, 1889, 1893; Mass. Acts, passed 1844, 1847, 1860, 1868, 1869, 1870, 1871, 1873, 1875, 1886, 1888, 1889, 1893).

(6) For 99 years from July 1, 1892, of the railroad of the Housatonic Railroad Company (Private Laws of Conn., vol. i, p. 1025; do. vol. iv, pp. 921, 922, 924, 925, 926, 927; Private Acts of Conn., 1850, p. —; Private Laws of Conn., vol. v, p. 578; Conn. Private Acts, 1870, p. 115; Special Laws of Conn., vol. viii, p. 198; do. vol. ix, pp. 329, 422, 617, 844, 1006; Conn. Public Acts, 1889, chap. clxvi; Mass. Special Laws, vol. viii, p. 827; Mass. Acts and Resolutions, 1873, chap. 168; do. 1881, chap. 228; do. 1882, chap. 57; do. 1885, chap. 338; do. 1892, chap. 297).

(7) For 99 years from July 1, 1892, of the railroad of the New Haven & Derby Railroad Company (Private Laws of Conn., vol. v, p. 653; Conn. Private Acts, 1867, p. 265; Special Laws of Conn., vol. vi, p. 171; Conn. Private Acts, 1867, p. 53; Special Laws of Conn., vol. vi, pp. 673, 826, 874; do. vol. vii, pp. 114, 251, 343; do. vol. viii, p. 55; Conn. Special Acts, 1885, p. 23; do. 1886, p. 885).

(8) For 99 years from July 1, 1892, of the railroad of the Danbury & Norwalk Railroad Company, formerly the Fairfield County Railroad Company (Private Laws of Conn., vol. i, p. 998; do. vol. iv, pp. 885, —; Special Laws of Conn., vol. vi, pp. 373, 48, 655; do. vol. viii, p. 418; do. vol. ix, pp. 329, 949).

(9) For 99 years from April 1, 1893, of the railroad of the Berkshire Railroad Company (Mass. Special Laws, vol. vii, p. 785; do. vol. viii, pp. 249, 460, 827; Mass. Acts and Resolutions, 1873, chap. 168; do. 1885, chap. 338).

(10) For 99 years from April 1, 1893, of the railroad of the Stockbridge & Pittsfield Railroad Company (Mass. Special Laws, vol. viii, p. 733; Mass. Acts and Resolutions, 1866, chap. 126; do. 1871, chap. 162; do. 1873, chap. 168; do. 1885, chap. 338).

(11) For 99 years from April 1, 1893, of the railroad of the West Stockbridge Railroad Corporation (Mass. Special Laws, vol. vii, p. 645; do. vol. viii, pp. 2, 167; do. vol. x, p. 442).

**Organization.**

Names of Directors.	Post-office Address.	Expiration of Term.
E. H. TROWBRIDGE,	New Haven, Conn.,	October 19, 1893.
WILLIAM D. BISHOP,	Bridgeport, "	" "
NATHANIEL WHEELER,	" "	" "
HENRY C. ROBINSON,	Hartford, "	" "
CHARLES P. CLARK,	New Haven, "	" "
JOSEPH PARK,	New York, N. Y.,	" "
CHAUNCEY M. DEPEW,	" "	" "
HENRY S. LEE,	Springfield, Mass.,	" "
WILLIAM ROCKEFELLER,	New York, N. Y.,	" "
LEVERETT BRAINARD,	Hartford, Conn.,	" "
J. PIERPONT MORGAN,	New York, N. Y.,	" "
LUCIUS TUTTLE,	New Haven, Conn.,	" "
GEO. MACCULLOCH MILLER,	New York, N. Y.,	" "

Total number of stockholders at date of last election, 5,319.

Date of last meeting of stockholders for election of directors, October 19, 1892.

Post-office address of general office, New Haven, Conn.

Post-office address of operating office, New Haven, Conn.

**Officers.**

Title.	Name.	Location of Office.
President,	CHARLES P. CLARK,	New Haven, Conn.
Vice-President,	LUCIUS TUTTLE,	" "
Second Vice-President,	C. S. MELLEN,	" "
Secretary,	WILLIAM D. BISHOP, JR.,	Bridgeport, "
Treasurer,	WILLIAM L. SQUIRE,	New Haven, "
Executive Secretary,	WILLIAM E. BARNETT,	" "
Comptroller,	H. M. KOCHERSPERGER,	" "
Chief Engineer,	F. S. CURTIS,	" "
General Superintendent,	C. H. PLATT,	" "
Division Superintendent,	O. M. SHEPARD,	New York, N. Y.
" "	C. S. DAVIDSON,	Hartford, Conn.
" "	W. A. WATERBURY,	New Haven, "
" "	A. S. OSTRANDER,	" "
" "	R. G. CURTIS,	" "
" "	GEORGE W. BEACH,	Waterbury, "
" "	J. V. A. TRUMBULL,	Hartford, "
" "	J. P. HOPSON,	New Haven, "
" "	F. C. PAYNE,	Danbury, "
" "	J. B. GARDINER,	Providence, R. I.
" "	F. G. SPENCER,	" "
General Freight Agent,	N. A. WILLCOX,	New Haven, Conn.
General Passenger Agent,	C. T. HEMPSTEAD,	" "
General Ticket Agent,	J. N. STATES,	" "
General Baggage Agent,	G. A. MORTON,	" "



## Property Operated.

Name of every Railroad the operations of which are included in the Income Account — (p. 272):

- 1 Railroad Line representing Capital Stock. 2. Proprietary Companies whose entire Capital Stock is owned by this Company. 3. Line Operated under Lease for specified sum. 4. Line Operated under Contract, or where Rent is contingent upon earnings or other considerations. 5. Line Operated under Trackage Rights.

Name.	TERMINALS.		Miles of Line for each Road Named.	Miles of Line for each Class of Roads Named.
	From —	To —		
1. N. Y., New Haven & Hartford, New Canaan Branch,	Woodlawn Jct., N. Y.	Springfield, Mass.	122.44	
West River “	Stamford, Conn.	New Canaan, Conn.	7.66	
Stonington Division,	Union Depot, N. H.	West River Branch.	.87	
Buttonwood B'ch, Ston. Div'n,	Main Line, N. H.	N. H. & Derby R. R.	.79	
Pontiac Branch,	New London, Conn.	Providence, R. I.	62.11	
Henderson St. Branch,	Auburn, R. I.	Buttonwood, “	9.90	
Belle Dock “	Auburn, R. I.	Pontiac, “	4.69	
New Britain “	Auburn, R. I.	Henderson St., Prov.	3.58	
Middletown “	Shore Line Jct., N. H.	Belle Dock, N. H.	1.00	
Freight “	Berlin, Conn.	New Britain, Conn.	3.18	
Valley Division,	Berlin, “	Middletown, “	9.70	
Suffield Branch,	Hartford, “	Hartford, “	.84	
Stonington Loop, Ston. Div'n,	Hartford, “	Fenwick, “	46.20	
Groton Branch, “ “	Windsor Locks, “	Suffield, “	4.32	
	At Stonington, “		.97	
	Groton, “	Poquonock Jct., Ct.	4.10	282.35
2 & 3. Harlem Riv. & P't Chester, West Stockbridge,	Harlem River, N. Y.	New Rochelle, N. Y.	11.50	
	W. Stockbridge, Mass.	N. Y. State Line.	2.64	14.14
3. Danbury & Norwalk,	Danbury, Conn.	Wilson Point, Conn.	26.28	
Ridgefield Branch,	Branchville, “	Ridgefield, “	3.97	
Housatonic,	Bridgeport, “	Mass. State Line.	74.97	
Botsford Branch,	Botsford, “	Huntington, Conn.	9.79	
Danbury “	Brookfield Jct., “	Danbury, “	5.36	
Berkshire,	Conn. State Line,	W. Stockbridge, Ms.	20.53	
Stockbridge & Pittsfield,	Van Deusen Jct., Ms.	Pittsfield, Mass.	22.02	
Naugatuck,	Naugatuck Jct., Conn.	Winsted, Conn.	56.55	
Watertown Branch,	Waterbury, “	Watertown, “	4.44	
New Haven & Derby,	New Haven, “	Ansonia, “	12.90	
Huntington Branch,	Derby, “	Huntington, “	3.79	
Shore Line Railway,	New Haven, “	New London, “	48.53	
Providence & Worcester,	Providence, R. I.	Worcester, Mass.	40.81	
East Providence Branch,	Valley Falls, “	East Providence, R. I.	7.00	
Pawtuxet Valley,	Pontiac, “	Hope, R. I.	5.67	
Boston & New York Air Line,	New Haven, Conn.	Willimantic, Conn.	51.50	
Colchester Railway,	Turnerville, “	Colchester, “	3.59	
New Haven & Northampton,	New Haven, “	Conway Jct., Mass.	94.64	
New Hartford Branch,	Farmington, “	New Hartford, Conn.	14.09	
Williamsburg “	Northampton, Mass.	Williamsburg, Mass.	7.51	
Turner's Falls “	South Deerfield, “	Turner's Falls, “	10.07	524.01
4. Holyoke & Westfield,	Holyoke, Mass.	Westfield, Mass.		10.32
5. New York & Harlem,	Woodlawn Jct., N. Y.	G'd Cent. Depot, N. Y.	12.03	
Pitchburg,	Conway Jct., Mass.	Shelburne F'ls. Mass.	4.67	
New York & New England,	Junction to Station.	Willimantic, Conn.	.36	
Boston & Albany,	Junction to Station.	Worcester, Mass.	.15	17.21
Total,			.....	848.03

**Property Operated.**—*Continued.*

Name of all Coal, Bridge, Canal, or other Properties, the Earnings and Expenses of which affect the General Balance Sheet — (p. 278):

Name.	Title.	State or Territory.
*Union Wharf, New Haven, Conn.	Owed.	Connecticut.

\* The income from this property is carried direct to Profit and Loss Account, as shown on p. 278.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	1,000,000	\$100.00	\$100,000,000	\$32,938,000.00	*10 p. ct.	\$2,945,535

\* Paid  $2\frac{1}{2}$  per cent. on \$27,751,400.00.  
 “ “ 28,858,600.00.

Paid  $2\frac{1}{2}$  per cent. on \$28,275,800.00.  
 “ “ 32,935,600.00.

Manner of Payment for Capital Stock.	Number of shares issued during year.	Cash realized on amount issued during year.	Total Number of shares issued.	Total cash realized.
Issued for Cash Oct. 1, '89: Com.,	.....	.....	31,000	\$3,100,000
Issued for Cash Oct. 1, '91: Com.,	.....	.....	46,750	4,675,000
Issued for stock of N.Y. & N.H. R.R. Co., and stock of Hartford & New Haven R.R. Co.,	.....	.....	155,000	15,500,000
Issued for stock of Stamford & New Canaan R.R. Co.,	.....	.....	1,000	100,000
Issued for stock of N.Y., Providence & Boston R.R. Co.,	50,000	\$5,000,000	50,000	5,000,000
Issued for stock of Hartford & Conn. Valley R.R. Co.,	8,000	800,000	8,000	800,000
Issued for stock of other Leased Lines,*	37,630	3,763,000	37,630	3,763,000
Total, . . . . .	95,630	\$9,563,000	329,380	\$32,938,000

\* See page 280.

## Funded Debt.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
1st Mortgage, 1st Mtg. N. Y., Prov. & Bos.,	1883	1903	\$5,000,000	\$2,000,000	\$2,000,000	2,047,971.09
1st Mtg. N. Y., Prov. & Bos.,	1869	1899	1,000,000	1,000,000	1,000,000	1,000,000.00
1st Mtg. N. Y., Prov. & Bos.,	1881	1901	300,000	300,000	300,000	300,000.00
Gen'l Mtg. N. Y., P. & B.,	1892	1942	4,000,000	1,000,000	1,000,000	1,000,000.00
Total,	.....	.....	\$10,300,000	\$4,300,000	\$4,300,000	4,347,971.09

## INTEREST.

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
4 per cent.	June and December.	\$80,000.00	\$80,000.00
7    "    "	January and July.	70,000.00	70,000.00
4    "    "	April and October.	12,000.00	12,000.00
4    "    "	April and October.	40,000.00	40,000.00
Total,	.....	*\$202,000 00	\$202,000.00

* Amount of interest on New York, Providence & Boston Railroad Company bonds included in rental for lease of road prior to merger, . . . . .	\$85,666.67
Amount of interest included as "Interest on Funded Debt" New York, New Haven & Hartford Railroad Company after the merger, . . . . .	36,333.33
	\$122,000.00

## Recapitulation of Funded Debt.

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p. 269),	\$4,300,000.00	\$4,300,000.00	*\$202,000.00	\$202,000.00

\* See note on page 280.

## Current Assets and Liabilities.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash, . . . . .	\$322,714.91	Loans and Bills Payable, \$2,412,500.00	
Bills Receivable, . . . . .	769,224.73	Audited vouchers and ac-	
Due from Agents, . . . . .	343,794.44	counts, . . . . .	1,169,728.64
Due from Solvent Compa-		Wages and Salaries, . . . . .	169,803.60
nies and Individuals, . . . . .	387,678.07	Net Traffic Balances due to	
Other Cash Assets (exclud-		other Companies, . . . . .	134,725.98
ing "Materials and Sup-		Dividends not called for, . . . . .	5,313.00
plies"),* . . . . .	913,988.66	Matured Interest Coupons	
Trustees of subscriptions to		unpaid (including coupons	
Conv. Debenture Certifi-		due July 1), . . . . .	1,442.50
cates, \$823,988.66		Rents due July 1, . . . . .	1,441.62
Property No. 266			
South St., N. Y., 90,000.00			
Balance — Current Liabili-			
ties, . . . . .	1,157,554.53		
Total, . . . . .	\$3,894,955.34	Total, . . . . .	\$3,894,955.34

\* Materials and Supplies on hand, \$1,372,223.45.

## Recapitulation.

a. For mileage owned by road making this report.

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 268),	\$32,938,000.00	\$32,938,000.00	282.35	\$116,656.63
Bonds (p. 269),	4,300,000.00	4,300,000.00	282.35	15,229.32
Current Liab. (p. 270),	3,894,955.34	3,894,955.34	282.35	*13,794.78
Total, . . . . .	\$41,132,955.34	\$41,132,955.34	282.35	\$145,680.73

\* This debt was incurred for account of all road operated, and the entire amount should not be confined to road owned.



**Recapitulation.—Continued.**

b. For mileage operated by road making this report (trackage rights excluded), the operations of which are included in the Income Account (p. 272):

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	AMOUNT PER MILE OF ROAD.	
					Miles.	Amount.
N. Y., N. H. & Hartford,	32,938,000.00	4,300,000.00	3,894,955.34 No information as of June 30, 1893.	41,132,955.34	282.35	145,680.73
Harl'm Riv. & P. Chest.,	42,250.00	3,000,000.00		3,042,250.00	11.50	264,543.48
Shore Line,	1,000,000.00	200,000.00		1,200,000.00	48.53	24,726.97
Providence & Worcester,	3,500,000.00	1,500,000.00		5,000,000.00	47.81	104,580.63
Pawtuxet Valley,	100,900.00	160,000.00		260,900.00	5.67	46,014.11
Bost. & N. Y. Air Line,	3,863,640.88	500,000.00		4,362,730.88	51.50	84,713.22
Colchester,	25,000.00	25,000.00		50,000.00	3.59	13,927.57
N. H. & Northampton,	2,460,000.00	3,900,000.00		6,360,000.00	126.31	50,352.30
Holyoke & Westfield,	260,000.00	260,000.00		520,000.00	10.32	50,375.59
Naugatuck,	2,000,000.00	150,000.00		2,150,000.00	60.99	35,251.68
Housatonic,	2,898,900.00	3,000,000.00		5,898,900.00	90.12	65,456.05
Berkshire,	600,000.00	.....		600,000.00	20.53	29,225.52
West Stockbridge,	39,600.00	.....		39,600.00	2.64	15,000.00
Stockb'ge & Pittsfield,	448,700.00	.....		448,700.00	22.02	20,376.93
Danbury & Norwalk,	600,000.00	650,000.00		1,250,000.00	*36.20	34,530.39
New Haven & Derby,	447,000.00	1,526,900.88		1,973,900.88	16.69	118,268.48
Total,	\$ 51,223,990.88	19,171,900.88	3,894,955.34	74,289,937.10	836.77	88,781.79

\* The total road owned by the Danbury & Norwalk Railroad Company is 36.20 miles, only 30.25 miles of which is operated by this company, the balance 5.95 miles being operated by the Shepaug, Litchfield & Northern Railroad Company. The total has been given in the table above. The grand total of miles operated as shown is therefore 5.95 miles in excess of the mileage operated by this company and as shown by other tables in this report.

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	EXPENDITURES DURING YEAR.		Total Cost to June 30, 1892.	Total Cost to June 30, 1893.
	Included in Operating Expenses.	Not included in Operating Expenses charged to Construction or Equipment.		
Construction:				
Right of Way,	.....	\$6,179.63	.....	.....
Other Real Estate,	.....	1,593,947.60	.....	.....
Fences,	.....	4,098.49	.....	.....
Grading, Bridge and Culvert Masonry,	.....	1,093,106.10	.....	.....
Bridges and Trestles,	\$7,500.00	299,638.50	.....	.....
Rails,	.....	65,603.95	.....	.....
Ties,	.....	30,565.36	.....	.....
Other Superstructure,	.....	34,680.12	.....	.....
Buildings, Furniture and Fixtures,	.....	545,815.45	.....	.....
Engineering Expenses,	.....	32,505.46	.....	.....
Wharfing, etc.,	106,634.20	.....	.....	.....
Purchase of constructed road,*	.....	7,875,840.11	.....	.....
Other items,	.....	168,388.95	.....	.....
Total Construction,	\$114,134.20	\$11,750,369.73	\$23,798,950.01	\$35,549,319.73
Equipment:				
Locomotives,	.....	395,626.84	.....	.....
Passenger Cars,	21,093.93	534,796.31	.....	.....
Sleeping, Parlor, and Dining Cars,	213,247.13	.....	.....	.....
Baggage, Express, and Postal Cars,	1,303.52	3,963.32	.....	.....
Freight Cars,	.....	17,211.10	.....	.....
Floating Equipment,	.....	262,300.00	.....	.....
Total Cost Equipment,	\$235,644.58	\$1,213,897.57	\$3,897,617.29	\$5,111,514.86
Total Cost Construction, Equip- ment, etc.,	\$349,778.78	\$12,964,267.29	\$27,696,567.30	\$40,660,834.59

\* New York, Providence & Boston, ..... \$6,979,193.04  
Hartford & Connecticut Valley, ..... 896,647.07

\$7,875,840.11

This includes the cost of Equipment, the amount of which cannot be ascertained.

## Income Account.

Gross Earnings from Operation (p. 273), . . .	\$18,113,474.38	
Less Operating Expenses (p. 276), . . .	12,405,934.27	
Income from Operation, . . .		\$5,707,540.11
Dividends on Stocks Owned (p. 274), . . .	\$159,292.56	
Interest on Bonds Owned (p. 275), . . .	37,114.99	
Miscellaneous Interest received, . . .	13,605.86	
Income from other Sources, . . .		210,013.41
Total Income, . . .		<u>\$5,917,553.52</u>

## Deductions from Income:

Interest on Funded Debt accrued (p. 269),* . . .	\$116,333.33	
Interest on Interest-bearing Current Liabilities accrued, not otherwise provided for, . . .	146,551.42	
Rents (p. 277), . . .	1,757,531.33	
Taxes, . . .	845,858.05	
† Other Deductions, . . .	53,280.50	
Total Deductions from Income, . . .		2,919,554.63
Net Income, . . .		<u>\$2,997,998.89</u>

Dividends, 10 per cent., common stock (p. 268), . . .	\$2,945,535.00	
Total, . . .		2,945,535.00
Surplus from Operations of Year ending June 30, 1893,		52,463.89
Surplus on June 30, 1892 [from "General Balance Sheet," 1892 Report], . . .		4,007,715.99
		<u>\$4,060,179.88</u>
Additions for Year;‡ . . .	\$3,327,162.25	
Deductions for Year,§ . . .	1,277,425.97—	2,049,736.28
Surplus on June 30, 1893 [for entry on "General Balance Sheet," p. 278], . . .		<u><u>\$6,109,916.16</u></u>

\* See Note on page 279.

† Interest on Rolling Stock Ctls. and Ctls. of Indebtedness Housatonic R. R. Co., . . .	\$20,500.00
Interest on Convertible Debenture Certificates, . . .	32,780.50
	<u>\$53,280.50</u>

‡ Premiums from sale of 13,324 Shares of Stock owned by the Company, . . .	\$2,066,155.61
Excess of receipts over expenses Union Wharf Co., . . .	8,077.60
Excess of assets over liabilities New York, Providence & Boston R. R. Co., . . .	1,157,081.97
Balance Profit and Loss account of Hartford & Conn. Valley R. R. Co., . . .	95,847.07
	<u>\$3,327,162.25</u>

§ Adjustment of ledger value of stocks owned of leased lines received in exchange for New York, New Haven & Hartford R. R. Co. stock, . . .	\$41,519.11
Excess of current and deferred liabilities over current assets Housatonic R. R. Co., . . .	1,226,600.31
Worthless accounts written off, . . .	4,306.55
Bonds owned of Watertown & Waterbury R. R. Co. canceled, . . .	5,000.00
	<u>\$1,277,425.97</u>

**Earnings from Operations.**

Item.	Total Receipts.	Deductions, Account of Repayments, etc.	Actual Earnings.
Passenger:			
Passenger Revenue, . . . . .	\$8,644,208.35		
Less Repayments:			
Tickets Redeemed, . . . . .		\$42,919.02	
Excess Fares refunded, . . . . .		37,948.89	
Total Deductions, . . . . .		\$80,867.91	
Total Passenger Revenue, . . . . .			\$8,563,340.44
Mail, . . . . .	\$298,917.60		
Express, . . . . .	485,233.20		
Extra Baggage and Storage, . . . . .	59,653.05		
Drawing-room, Sleeping Cars, Special Trains, etc., . . . . .	400,400.88		\$1,244,204.73
Total Passenger Earnings, . . . . .			\$9,807,545.17
Freight:			
Freight Revenue, . . . . .	\$7,844,041.05		
Less Repayments:			
Overcharge to Shippers, . . . . .		\$18,934.06	
Total Deductions, . . . . .		\$18,934.06	
Total Freight Revenue, . . . . .			\$7,825,106.99
Hoisting, Trackage, etc., . . . . .	\$290,417.41		290,417.41
Total Freight Earnings, . . . . .			\$8,115,524.40
Total Passenger and Freight Earnings, . . . . .			\$17,923,069.57
Other Earnings from Operations:			
Rents from Tracks, Yards, and Terminals, . . . . .	\$190,404.81		
Total other Earnings, . . . . .			\$190,404.81
Total Gross Earnings from Operation — Entire Line, . . . . .			\$18,113,474.38

## Stocks Owned.

Name.	Total Par Value.	Rate.	Income or Divi- dend Received.	Valuation.
Providence & Stonington S. S. Co.,	\$1,277,600	10%	\$127,760.00	\$1,437,300
* N. Haven & Northampton R. R. Co.,	900	.....	6,158.00	900
* New Haven & Derby R. R. Co.,	900	3%	5,191.50	675
† Hartford & Conn. Valley R. R. Co.,	.....	4%	8,000.00	.....
* Danbury & Norwalk R. R. Co.,	.....	5%	5,925.25	.....
West Stockbridge R. R. Co.,	39,600	5½%	2,803.00	29,888
* B. & N. Y. Air Line R. R. Co. (Pref.),	1,000	4%	1,033 31	1,001
“ “ “ (Com.),	658,600	.....	.....	32,930
N. Y. Cent. & Hud. River R. R. Co.,	10,000	5%	500.00	10,385
Stockbridge & Pittsfield R. R. Co.,	9,500	12½%	\$1,216.00	7,600
New York Transfer Co.,	4,000	6%	240.00	1,600
Narragansett Pier R. R. Co.,	18,700	2%	374.00	18,700
N. Y., Providence & Bost. R. R. Co.,	.....	10%	30.00	.....
‡ N. Y., P. & B. & O. C. Term'l Co.,	75,000	.....	.....	37,500
N. Y., N. H. & H. R. R. Co.,	.....	10%	37.50	.....
Shore Line Railway,	600	4%	24.00	1,125
Harlem Riv. & Portchester R. R. Co.,	42,250	.....	.....	42,250
Naugatuck R. R. Co.,	2,700	.....	.....	6,683
Housatonic R. R. Co.,	900	.....	.....	270
Wood River Branch R. R. Co.,	20,000	.....	.....	20,000
Total,	\$2,162,250	.....	\$159,292.56	\$1,648,807

\* In addition to the stocks listed, the Company holds stocks of various leased lines for which its own stock has been issued in accordance with the Company's circular of December 10, 1892, a copy of which is attached to page 279 of this report. The amount of New York, New Haven & Hartford Railroad Company stock so issued was \$3,763,000.00, as shown by the following statement, which amount represents the valuation of the stocks acquired, shown separately on the balance sheet. The income from the stocks of the New Haven & Northampton Company, the New Haven & Derby Railroad Company, the Danbury & Norwalk Railroad Company, and the Boston & New York Air Line Railroad Company (Preferred) so acquired, included in the statement on this page, was received or accrued during the process of exchange for New York, New Haven & Hartford Railroad Company stock.

† Quarterly dividends of 1 per cent. on total amount of H. & C. V. R. R. stock (all owned by the Company), prior to the merger of that Company with the New York, New Haven & Hartford Railroad Company.

‡ Paid assessments of \$15.00 per share.

§ Includes back dividends received.

## NEW YORK, NEW HAVEN &amp; HARTFORD RAILROAD COMPANY.

Capital stock of leased lines (not merged) received in exchange for capital stock of the New York, New Haven & Hartford Railroad Company:

N. H. & N. Co.,	24,035 shares for 9,614 shares of N. Y., N. H. & H.,	\$961,400.00
B. & N. Y. A. L. R. R.,	15,725 shares for 6,290	629,000.00
Shore Line Railway,	8,068 shares for 6,051	605,100.00
Naugatuck R. R.,	9,551 shares for 9,551	955,100.00
Housatonic R. R.,	22,528 shares for 2,816	281,600.00
Danbury & Norwalk R. R.,	8,928 shares for 2,232	223,200.00
New Haven & Derby R. R.,	3,497 shares for 1,076	107,600.00
Total,	37,630	\$3,763,000.00



## Bonds Owned.

Name.	Total Par Value.	Rate.	Income or Dividend Received.	Valuation.
N. H. & Northampton Co.,	\$350,000.00	5%	\$17,500.00	\$348,612.50
N. H. & Derby R. R. Co., Real Estate Certificates,	175,000.00	6%	9,625.00	183,750.00
N. Y. & New England R. R. Co.,	15,000.00	7%	1,050.00	13,918.10
" " " "	100,000.00	6%	6,000.00	99,000.00
Har. Riv. & Port Chester R. R. Co.,	10,000.00	7%	700.00	13,300.00
" " " "	56,000.00	4%	2,239.99	56,572.17
Pawtuxet Valley R. R. Co.,	100,000.00	7%	.....	100,000.00
Total,	\$806,000.00		\$37,114.99	\$815,152.77

## Operating Expenses.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures:			
Repairs of Roadway, . . . . .	\$663,614.85	\$448,940.08	\$1,112,554.93
Renewals of Rails, . . . . .	62,112.82	41,408.54	103,521.36
Renewals of Ties, . . . . .	136,528.52	91,019.02	227,547.54
Repairs of Bridges and Culverts, . .	96,603.16	64,402.10	161,005.26
Repairs of Fences, Road-crossings, Signs, and Cattle-guards, . . . .	35,116.42	23,410.95	58,527.37
Repairs of Buildings, . . . . .	200,672.88	142,187.33	342,860.21
Repairs of Docks and Wharves, . . . . .	.....	184,854.94	184,854.94
Other expenses, . . . . .	67.73	45.16	112.89
Total,	\$1,194,716.38	\$996,268.12	\$2,190,984.50
Maintenance of Equipment:			
Repairs and renewals of Locomotives, . . . . .	257,554.14	170,878.01	428,432.15
Repairs and renewals of Passenger Cars, . . . . .	654,622.69	.....	654,622.69
Repairs and renewals of Freight Cars, . . . . .	.....	445,842.44	445,842.44
Repairs of Ferry-boats, Tugs, Floats, and Barges, . . . . .	.....	77,504.80	77,504.80
Shop Machinery, Tools, etc., . . . . .	40,878.32	27,252.20	68,130.52
Other expenses, . . . . .	19,002.92	12,668.61	31,671.53
Total,	\$972,058.07	\$734,146.06	\$1,706,204.13

Operating Expenses. — *Continued.*

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Conducting Transportation:			
Wages of Enginemen, Firemen, and Roundhousemen, . . . . .	\$512,573.37	\$329,275.38	\$841,848.75
Fuel for Locomotives, . . . . .	652,165.01	484,218.82	1,136,383.83
Water-supply for Locomotives, . . . . .	53,995.71	35,997.14	89,992.85
All other supplies for Locomotives, . . . . .	64,071.34	39,535.11	103,606.45
Wages of other Trainmen, . . . . .	581,324.34	742,478.29	1,323,802.63
All other train supplies, . . . . .	313,546.29	18,926.66	332,472.95
Wages of Switchmen, Flagmen, and Watchmen, . . . . .	165,729.76	201,378.53	367,108.29
Expense of Telegraph, including Train Dispatchers and Operators, . . . . .	66,895.64	90,615.48	157,511.12
Wages of Station Agents, Clerks, and Laborers, . . . . .	518,294.35	1,315,026.15	1,833,320.50
Station supplies, . . . . .	69,201.44	37,739.95	106,941.39
Car Mileage — balance, . . . . .	.....	251,938.02	251,938.02
Loss and Damage, . . . . .	8,883.99	28,849.53	37,733.52
Injuries to persons, . . . . .	63,195.72	33,099.28	96,295.00
Barges, Floats, Tugs, Ferry-boats, expenses of, including wages, fuel, and supplies, . . . . .	.....	319,910.65	319,910.65
Other expenses, . . . . .	240,379.65	107,069.93	347,449.58
Total,	\$3,810,256.61	\$4,036,058.92	\$7,846,315.53
General Expenses:			
Salaries of Officers, . . . . .	114,666.00	81,120.68	195,786.68
Salaries of Clerks, . . . . .	69,086.49	47,873.51	116,960.00
General Office Expenses and Supplies, . . . . .	14,554.16	9,702.78	24,256.94
Advertising, . . . . .	38,196.33	.....	38,196.33
Insurance, . . . . .	10,126.47	18,250.96	28,377.43
Expense of Traffic Associations, . . . . .	283.49	819.36	1,102.85
Rents for Yards, Tracks, and Termi- nals (p. 277), . . . . .	194,026.34	75,568.81	269,595.15
Rents not otherwise provided for, . . . . .	6,901.28	6,668.32	13,569.60
Legal Expenses, . . . . .	156,895.76	101,172.10	258,067.86
Stationery and Printing, . . . . .	99,231.33	57,321.48	156,552.81
Other General Expenses, . . . . .	35,732.97	24,231.49	59,964.46
Total,	\$739,700.62	\$422,729.49	\$1,162,430.11
Recapitulation of Expenses:			
Maintenance of Way and Structures, . . . . .	1,194,716.38	996,268.12	2,190,984.50
Maintenance of Equipment, . . . . .	972,058.07	734,146.06	1,706,204.13
Conducting Transportation, . . . . .	3,310,256.61	4,036,058.92	7,346,315.53
General Expenses, . . . . .	739,700.62	422,729.49	1,162,430.11
Grand Total,	\$6,216,731.68	\$6,189,202.59	12,405,934.27
Percentage of Expenses to Earnings — } Entire Line, . . . . .	63 $\frac{38}{100}$ %	76 $\frac{26}{100}$ %	69 $\frac{31}{100}$ %

## Rentals Paid.

## A.—Rents paid for lease of road:

Name of Road.	Interest on Bonds Guaranteed.	Dividends on Stock Guaranteed.	Cash.	Total.
Harlem River & Portchester,	\$170,000.00			\$170,000.00
Naugatuck,	6,000.00	\$152,245.00		158,245 00
Boston & N. York Air Line,	25,000.00	72,765 00		97,765.00
Colchester,	1,750.00			1,750.00
Shore Line,			\$67,728.00	67,728.00
New Haven & Northampton,	233,000.00	13,348.75	15,000.00	261,348.75
Holyoke & Westfield,	11,600.00		26,279.20	37,879.20
Hartford & Conn. Valley,		8,000 00	24.00	8,024 00
New York, Prov. & Boston,	85,666.67	18,060.00		103,726.67
Providence & Worcester,	90,000.00	350,000.00	8,666.67	448,666 67
Pawtuxet Valley,	10,600.00	7,063.00		17,663.00
Housatonic,	149,000.00	29,784.75	32,850.00	211,634.75
Berkshire,		9,000.00	62.50	9,062.50
West Stockbridge,			450.00	450.00
Stockbridge & Pittsfield,		6,730.50	62.50	6,793.00
Danbury & Norwalk,	33,500.00	22,590.00	4,176.23	60,266.23
New Haven & Derby,	88,364.06	8,164.50		96,528 56
Total Rents — A,	\$904,480.73	\$697,751.50	\$155,299.10	\$1,757,531.33

## B.—Rents paid for lease of other property:

Designation of Property.	Situation of Property Leased.	Name of Company Owning Property Leased.	Total.
Tracks:	Bet. Conway J'n, Ms., & Shelburne F'ls, Ms.	Fitchburg R. R.	\$7,500.00
Yards:			
Land for Tracks,	Worcester, Mass.,	N. Y. & N. E. R. R.	1,125.00
" "	East Providence, R. I.,	Old Colony R. R.	800.00
" "	Providence, R. I.,	City of Providence.	230.59
" "	Woonsocket, R. I.,	F. Harris, <i>et al.</i>	250.00
Terminals:			
Gr. Cent. St'n, N. Y.,	New York City,	N. Y. & Harlem R. R.	151,693.01
Docks, etc.,	Piers 36, 45, 50, 51, E. River, N. Y.,	City of N. York <i>et al.</i>	69,788.22
Station,	Springfield, Mass.,	Boston & Albany R. R.	20,000.00
"	Willimantic, Conn.,	N. Y. & N. E. R. R.	3,500.00
"	Shelburne Falls, Mass.	Fitchburg R. R.	2,500.00
"	Pittsfield, Mass.,	Boston & Albany R. R.	1,875.00
"	Providence R. I.,	Old Colony R. R.	3,000.00
"	Worcester, Mass.,	Boston & Albany R. R.	7,333.33
Grand Total Rents — B,			\$269,595.15

## Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase, Year ending June 30, 1893.
\$23,798,950.01	Cost of Road (p. 271), . . .	\$35,549,319.73	\$11,750,369.72
3,897,617.29	Cost of Equipment (p. 271), . . .	5,111,514.86	1,213,897.57
1,438,554.11	Stocks owned (p. 274), . . .	1,648,807.00	210,252.89
536,402.77	Bonds owned (p. 275), . . .	815,152.77	278,750.00
\$29,671,524.18		\$43,124,794.36	\$13,453,270.18
	Stocks of leased lines (not merged) exchanged for stock of the N. Y., N. H. & H. R. R. Co., . . .	3,763,000.00	3,763,000.00
596,110.64	Lands owned, incl. in cost of road. Cash and Current Assets (p. 270), . . .	2,737,400.81	2,141,290.17
	Other Assets:		
632,366.96	Materials and Supplies, . . .	1,372,223.45	739,856.49
	Sundries — Contingent Assets:		
	N. Y., P. & B. and O. C. Ter. Co., . . .	88,275.91	88,275.91
	Expenditures on Paw't Val. R. R., . . .	16,313.53	16,313.53
24,530.17	Adv. to H. R. & Pt. Ch. R. R. Co., . . .	24,530.17	
\$566,897.13		\$1,501,343.06	\$844,445.93
\$30,924,531.95	Grand Total, . . .	\$51,126,538.23	\$20,202,006.28

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase, Year ending June 30, 1893.
\$23,375,000.00	Capital Stock (p. 268), . . .	\$32,938,000.00	\$9,563,000.00
	Subscriptions to Convertible De- benture Certificates, . . .	3,281,900.00	3,281,900.00
2,000,000.00	Funded Debt (p. 269), . . .	4,300,000.00	2,300,000.00
1,342,048.10	Current Liabilities, . . .	3,894,955.34	2,552,907.24
	Accrued Interest on Funded Debt not yet payable, . . .	63,629.54	
{ 6,666.67	Accrued Rentals not yet due, . . .	182,037.85	{ * 56,962.87
{ 193,101.19			
\$199,767.86	Total Accrued Liabilities, . . .	\$245,667.39	\$45,899.53
	Deferred Liabilities:		
	Rolling Stock Ctls., Housatonic Railroad, . . . due 1899, . . .	200,000.00	200,000.00
	Ctls. Indebtedness do., due 1894, . . .	50,000.00	50,000.00
	do. do., due 1895, . . .	50,000.00	50,000.00
	do. do., due 1896, . . .	50,000.00	50,000.00
	Total Deferred Liabilities, . . .	\$350,000.00	\$350,000.00
	Deferred Income, being sales of certain Commutation Tickets, not usable until after July 1st, . . .	6,099.34	6,099.34
4,007,715.99	Profit and Loss, . . .	6,109,916.16	2,102,200.17
\$30,924,531.95	Grand Total, . . .	\$51,126,538.23	\$20,202,006.28

\* Decrease in Accrued Rentals not yet due, . . . \$11,063.34.



### Important Changes during the Year.

Branch from Union Depot, New Haven, Conn., to connection with tracks of New Haven & Derby Railroad Co. — 1.66 miles.

**ISSUE OF CONVERTIBLE DEBENTURE CERTIFICATES.**—The increase of traffic and earnings derived from the expenditures for improvements of the Company's plant and equipment during the last five years has been so manifest that its Board of Directors has determined to complete them as speedily as practicable. The full advantages anticipated cannot be realized until they are finished. More than ten millions of dollars have already been expended upon them, of which eight millions have been provided from increase of capital stock. The Board does not think it wise to issue at par the Company's stock upon which immediate dividends at the present rate might be expected; or to lessen the dividends for the purpose of improving the property; or to create an interest adverse to the stockholders by issuing mortgage bonds.

The Company, therefore, proposes to issue on the first day of April, 1893, at par, Convertible Debenture Certificates to an amount not exceeding fifteen millions of dollars.

The proceeds of these Convertible Debenture Certificates will be held as a trust fund, to be disbursed only for the following purposes:

For the completion of four tracks on the New York Division, including the Harlem River Branch;

For the completion of two tracks between New Haven and New London;

For terminals, notably at Providence, New London, New Haven, Bridgeport, and New York;

For additions to the Company's motive power and equipment, an extension of its block signal system, and the elimination of grade crossings;

For the payment of the floating debt of the Company already incurred for the above purposes.

Notice is hereby given to the stockholders that they may subscribe for these Convertible Debenture Certificates during the month of March, 1893, in the proportion of forty per cent. of their then holdings of the Company's capital stock. Stockholders may assign their right to subscribe. Allotments not subscribed or not paid for in accordance with the terms of this circular will be disposed of by the Board of Directors.

The transfer books will be and remain closed during the month of March.

As the proceeds of these Convertible Debenture Certificates cannot at once be expended with advantage, subscriptions will be payable in installments and negotiable receipts will be issued therefor. These installments of twenty-five (25) per cent. will be payable as follows:

On the first of April, 1893; on the first of October, 1893; on the first of April, 1894; on the first of October, 1894.

Interest on paid installments will be payable on the first days of October and April, at the rate of four per cent. per annum.

When full payment has been made, in accordance with the terms of this circular, Convertible Debenture Certificates (registered or coupon, at the option of the holder) will be issued in exchange therefor in denominations of one thousand (1,000) dollars (also in denominations of one hundred (100) dollars when necessary,) bearing interest at the rate of four per cent. per annum. The holder of these certificates will be entitled to exchange the same on the first day of April, 1903, or within sixty days thereafter, and no longer, for shares of the capital stock of

the company at par; if not then surrendered for exchange they will become due and payable in cash on the first day of April, 1908.

These Certificates will be countersigned by the Farmers Loan and Trust Company as registrar.

**ISSUE OF STOCK FOR THAT OF LEASED LINES.**—In accordance with the understanding in 1889, when the company was authorized to increase its capital stock, an opportunity will be given to the holders of stock in its leased lines to become stockholders of this company during the months of January and February, 1893. They will thereby become entitled to subscribe during the month of March for Convertible Debenture Certificates. Exchanges to be made upon the following basis:

This Company will issue and deliver of its stock:

One share for one share of the New York, Providence and Boston Railroad Company;

One share for one share of the Hartford and Connecticut Valley Railroad Company;

One share for eight shares of the preferred stock of the Housatonic Railroad Company;

Four shares for thirteen shares of the New Haven and Derby Railroad Company;

One share for four shares of the Danbury and Norwalk Railroad Company; And (with the approval of the committee provided for by the company's amended charter):

Two shares for five shares of the stock of the New Haven and Northampton Company;

Two shares for five shares of the preferred stock of the Boston and New York Air Line Railroad Company;

One share for one share of the Naugatuck Railroad Company;

Three shares for four shares of the Shore Line Railway.

To effect exchange, certificates of shares in either of the companies named must be assigned to The New York, New Haven and Hartford Railroad Company, and deposited, during the months of January and February, 1893, at either of the following places:

At the office of the Treasurer of the N. Y., N. H., & H. R. R. Co., in the city of New Haven.

At the Transfer Office of the Company, Room 3, Grand Central Depot, New York.

At the office of Drexel, Morgan & Co., 23 Wall Street, New York.

At the office of the Farmers Loan & Trust Company, 22 William Street, New York.

At the office of the General Agent of the Company, Sears Building, Room 205, in the City of Boston.

At the office of A. R. Longley, Treasurer's Agent, Union Station, Providence, R. I.

At the office of the Springfield Institution for Savings, in the City of Springfield, Mass.

See detailed statement on page 279.

New York, Providence and Boston Railroad Company and the Hartford and Connecticut Valley Railroad Company. (See statement, page 281.)

Purchase of N. Y., Prov. & Boston R. R., . . . . .	\$5,000,000.00
Purchase of Hartford & Conn. Valley R. R., . . . . .	800,000.00
Exchanged for stocks of Leased Lines as shown on page 268, . . . . .	3,763,000.00
	<hr/>
	\$9,563,000.00

No bonds issued, but the company has assumed the Funded Liabilities of the New York, Providence and Boston Railroad Co., amounting to \$2,300,000.00, shown in detail on previous pages.

In addition to the above the company reports that, for the purpose of making permanent improvements, purchase of equipment, etc., its directors authorized the issuance of \$15,000,000 in Convertible Debenture Certificates, each for the amount of \$1,000, dated April 1, 1893, convertible into ten shares of capital stock April 1, 1903. If not presented within sixty days after that date, payment is to be made of principal, April 1, 1908. Interest at 4 per cent., payable semi-annually until principal is converted or paid. Subscriptions payable as follows: April 1, 1893, 25 per cent.; October 1, 1893, 25 per cent.; April 1, 1894, 25 per cent.; October 1, 1894, 25 per cent.

#### Contracts, Agreements, etc.

The Adams Express Company runs over this line; compensation is based mainly on space occupied by express matter.

This company has no formal contract with the United States Government for the transportation of mails, but takes the compensation allowed by law for their transportation.

Sleeping, parlor, and buffet cars are operated over this road. These classes of cars on through and local Shore line trains between New York and Boston are owned and operated by this company.

Joint lines are operated in connection with Boston & Albany Railroad Company of both sleeping and parlor cars, each company furnishing its quota, based on mileage.

Joint lines of parlor cars are operated in connection with the New York & New England Railroad Company, each company furnishing its quota of cars, based on mileage.

Pullman sleepers and parlor cars are operated by Pullman Company between Boston and Harlem River, filling joint line with the Pennsylvania Railroad Company between Boston, Philadelphia, and Washington.

One dining car is operated between Boston and New London, owned by this company and the Old Colony Railroad Company.

This company has arrangements with its connections for the interchange of freight and passengers whereby it receives in some cases its local rates and in other cases a proportion of the through rate based on the relative mileage. There also exists a contract (to which this company is a party) between the rail and water transportation lines between New York and Boston which regulates rates of freight and passengers.

There is no written contract with N. Y., N. H. & H. R. R. Co., but an arrangement with the Western Union Telegraph Co., whereby right of way is conceded to it in consideration of telegraph facilities furnished to the railroad. The N. Y., N. H. & H. R. R. Co. succeeded to contracts between the Western Union Telegraph Co. and the N. Y., P. & B., and Housatonic R. R. Companies, which in effect are the same as above.

## Security for Funded Debt.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From —	To —	Miles.	
First Mort. New York, New Haven & Hartford R. R. Co.	Junction with the New York & Harlem R. R. at or near Williams Bridge, N. Y.	The northerly terminus of the N. Y., N. H. & H. R. R. in the city of Springfield, Mass.	122.44	Total issue limited to \$5,000,000.00
First Mort. N. Y., P. & B. R. R. Co.	Providence, R. I.	Stonington, Conn.	50.00	Limit of issue \$1,000,000.00
First Mort. N. Y., P. & B. R. R. Co.	Stonington, Conn.	Groton, Conn.	12.50	Limit of issue \$300,000.00
Gen'l Mort. N. Y., P. & B. R. R. Co.	Providence, R. I.	New London, Conn., including Thames River Bridge.	62.11	Limit of issue \$4,000,000.00

## Employees and Salaries.

Class.	Number.	Total Number of Days Worked.	Total Yearly Compensation.	Average Daily Compensation.
General Officers, . . . . .	50	16,016	\$211,529.42	\$13.21
General Office Clerks, . . . . .	382	100,129	250,557.40	2.50
Station Agents, . . . . .	322	116,853	265,152.91	2.27
Other Station Men, . . . . .	1,756	568,472	1,098,711.28	1.93
Enginemen, . . . . .	434	136,800	568,219.44	4.15
Firemen, . . . . .	431	136,015	292,430.60	2.15
Conductors, . . . . .	326	104,912	341,892.72	3.26
Other Trainmen, . . . . .	1,237	359,722	678,612.79	1.89
Machinists, . . . . .	386	121,867	276,861.17	2.27
Carpenters, . . . . .	719	173,044	393,376.37	2.27
Other Shopmen, . . . . .	1,674	447,593	765,042.90	1.71
Section Foremen, . . . . .	254	77,308	171,526.39	2.22
Other Trackmen, . . . . .	2,829	631,647	936,514.51	1.48
Switchmen, Flagmen, and Watchmen,	869	253,867	407,783.86	1.61
Telegraph Operators and Dispatchers,	167	54,791	108,642.58	1.98
Employees—account Floating Equip.,	246	82,566	141,133.35	1.71
All other Employes and Laborers, .	1,955	525,488	950,482.11	1.81
<b>Total (Including "General Officers"),</b>	<b>14,037</b>	<b>3,907,090</b>	<b>\$7,858,469.80</b>	<b>2.01</b>
Less "General Officers," . . . . .	50	16,016	211,529.42	13.21
<b>Total (Excluding "General Officers"),</b>	<b>13,987</b>	<b>3,891,074</b>	<b>\$7,646,940.38</b>	<b>1.97</b>
<b>Distribution of Above :</b>				
General Administration, . . . . .	432	116,145	462,086.82	3.98
Maintenance of Way and Structures,	3,541	861,950	1,462,054.57	1.70
Maintenance of Equipment, . . . . .	2,533	664,643	1,254,345.37	1.89
Conducting Transportation, . . . . .	7,531	2,264,352	4,679,983.04	2.07
<b>Total (Including "General Officers"),</b>	<b>14,037</b>	<b>3,907,090</b>	<b>\$7,858,469.80</b>	<b>2.01</b>
Less "General Officers"), . . . . .	50	16,016	211,529.42	13.21
<b>Total (Excluding "General Officers"),</b>	<b>13,987</b>	<b>3,891,074</b>	<b>\$7,646,940.38</b>	<b>1.97</b>



## Passenger, Freight, and Train Mileage.—Entire Line.

Item.	Tonnage, No. Passengers, No. Trains, Mileage, No. Cars.	REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
<b>Passenger Traffic:</b>				
No. of passengers carried earning revenue,	23,187,894			
No. of passengers carried one mile,	476,528,944			
Average distance carried,	20.550 miles			
Total passenger revenue,		8,563,340	44	
Average am't received from each passenger,			36	930
Average receipts per passenger per mile,			01	797
Estimated cost carrying each passenger 1 mile,			01	305
Total passenger earnings,		9,807,545	17	
Passenger earnings per mile of road,		11,565	09	
Passenger earnings per train mile,		1	54	353
<b>Freight Traffic:</b>				
No. of tons carried of freight earning revenue,	6,859,100			
No. of tons carried one mile,	419,056,144			
Average distance haul of one ton,	61.095 miles			
Total freight revenue,		7,825,106	99	
Average am't received for each ton of freight,			1	14
Average receipts per ton per mile,			01	867
Estimated cost of carrying one ton one mile,			01	477
Total freight earnings,		8,115,524	40	
*Freight earnings per mile of road,		9,713	49	
Freight earnings per train mile,		2	12	685
<b>Passenger and Freight:</b>				
Passenger and freight revenue,		16,388,447	43	
*Pass. and freight revenue per mile of road,		19,463	81	
Pass. and freight earnings,		17,923,069	57	
*Pass. and freight earnings per mile of road,		21,278	58	
Gross earnings from operation,		18,113,474	38	
*Gr. earnings from opera. per mile of road,		21,507	76	
Gr. earnings from opera. per train mile,		1	78	112
Expenses,		12,405,934	27	
Expenses per mile of road,		14,629	12	
Income from operation,		5,707,540	11	
Income from operation per mile of road,		6,878	64	
<b>Train Mileage:</b>				
Miles run by passenger trains,	6,318,706			
Miles run by freight trains,	3,709,990			
Miles run by mixed trains,	141,019			
Total Mileage Trains Earning Revenue,	10,169,715			
Miles run by switching trains,	2,377,089			
Miles run by construction and other trains,	655,669			
Grand Total Train Mileage,	13,202,473			
Mileage of loaded freight cars—North or East,	27,755,705			
Mileage of loaded freight cars—South or West,	20,836,217			
Mileage of empty freight cars—North or East,	3,928,248			
Mileage of empty freight cars—South or West,	10,317,771			
Average number of freight cars in train,	27.6			
Average number of loaded cars in train,	20.2			
Average number of empty cars in train,	7.4			
Average number of tons of freight in train,	109.82			
Av. No. of tons of freight in each loaded car,	5.44			

\*To compute "Freight Earnings per mile of road" on "Total mileage operated" (single track), as returned on page 286, under table A, is manifestly incorrect, when it is borne in mind

## Freight Traffic Movement.

Commodity.	Freight Originated on this Road.	Freight received from connecting roads and other carriers.	TOTAL FREIGHT TONNAGE.	
	Whole Tons.	Whole Tons.	Whole Tons.	Per Cent.
Products of Agriculture :				
Grain, . . . . .	52,013	109,082	161,095	2.35
Flour, . . . . .	15,356	62,730	78,086	1.14
Other Mill Products, . . . . .	14,265	33,998	48,263	0.70
Hay, . . . . .	17,909	65,600	83,509	1.22
Tobacco, . . . . .	4,471	1,041	5,512	0.08
Cotton, . . . . .	19,788	30,156	49,944	0.73
Fruit and Vegetables, . . . . .	18,094	50,347	68,441	1.00
Products of Animals :				
Live Stock, . . . . .	13,445	30,340	43,785	0.64
Dressed Meats, . . . . .	10,794	44,878	55,672	0.81
Other Packing-House Products, . . . . .	4,045	6,892	10,937	0.16
Poultry, Game, and Fish, . . . . .	2,062	14,206	16,268	0.24
Wool, . . . . .	10,985	15,321	26,306	0.38
Hides and Leather, . . . . .	3,185	21,848	25,033	0.36
Products of Mines :				
Anthracite Coal, . . . . .	469,027	134,922	603,949	8.81
Bituminous Coal, . . . . .	606,899	149,559	756,458	11.03
Coke, . . . . .	3,859	29,193	33,052	0.48
Ores, . . . . .	18,078	1,871	19,949	0.29
Stone, Sand, and other like articles, . . . . .	188,655	41,824	230,479	3.36
Products of Forest :				
Lumber, . . . . .	166,645	219,634	386,279	5.63
Manufactures :				
Petroleum and other Oils, . . . . .	48,593	22,201	70,794	1.03
Sugar, . . . . .	8,158	5,686	13,844	0.20
Iron, Pig and Bloom, . . . . .	84,028	70,010	154,038	2.25
Iron and Steel Rails, . . . . .	2,998	15,141	18,139	0.26
Other Castings and Machinery, . . . . .	80,080	33,774	113,854	1.66
Bar and Sheet Metal, . . . . .	52,531	48,328	100,859	1.47
Cement, Brick, and Lime, . . . . .	160,543	29,932	190,475	2.78
Agricultural Implements, . . . . .	257	29	286	
Wagons, Carriages, Tools, etc., . . . . .	3,150	1,265	4,415	0.06
Wines, Liquors, and Beers, . . . . .	32,433	24,464	56,897	0.83
Household Goods and Furniture, . . . . .	14,109	6,937	21,046	0.31
Merchandise, . . . . .	848,093	578,599	1,426,692	20.80
Miscellaneous :				
Other commodities not mentioned above, . . . . .	1,093,009	891,735	1,984,744	28.94
Total Tonnage, entire line, . . . . .	4,067,557	2,791,543	6,859,100	100.00

that on 12.03 miles of the mileage, operated under trackage rights (that between Woodlawn Junction and Grand Central Depot, New York), not one pound of freight is moved, that part of the road being used entirely for passenger traffic. The same objection, in less degree, applies to trackage rights at Willimantic and Worcester. Therefore in computing "Freight Earnings per mile of road," 4.67 miles of trackage rights only were included. In ascertaining the amount of "Passenger and Freight revenue per mile of road," the total mileage, including trackage rights, was used for Passenger revenue, and only 4.67 miles of trackage rights for Freight revenue. "Gross Earnings from operation per mile of road" has been arrived at by adding "Passenger Earnings per mile of road" and "Freight Earnings per mile of road," as stated, to "Rents not otherwise provided for" per mile of road exclusive of all trackage rights.

## Description of Equipment.

Item.	No. Added During Year.	Total No. at End of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.				
			No.	Kind.	No.	Kind.			
Locomotives :									
Passenger, . . . . .	15	229	{ 10	Eames.	{ 94	Miller.			
Freight, . . . . .	14	123	{ 219	Westinghouse.					
Switching, . . . . .	2	70	{ 113	"					
			{ 10	"	.....	.....			
Total Locomotives, . .	31	422	352	.....	94	.....			
Cars in Passenger Serv. :									
First-class Passenger Cars,	51	682	{ 659	Westinghouse.	{ 656	Miller.			
Combination Pass. Cars, . . . . .	.....	90	{ 23	Eames.			{ 3	Janney.	
Parlor Cars, . . . . .	20	83	{ 83	Westinghouse.					
Sleeping Cars, . . . . .	.....	23	{ 7	Eames.	{ 83	Miller.			
Baggage, Express, and			{ 83	Westinghouse.			{ 83	"	
Postal Cars, . . . . .	1	166	{ 23	"					{ 23
Other Cars in Passenger Service, . . . . .	.....	5	166	"	166	"			
			5	"			5	"	
Total, . . . . .	72	1,049	1,049	.....	1,019	.....			
Cars in Freight Service :									
Box Cars, . . . . .	55	2,686	128	Westinghouse.	1,021	Janney.			
Flat Cars, . . . . .	.....	1,367	.....	.....	257	.....			
Stock Cars, . . . . .	.....	12	.....	.....	.....	.....			
Coal Cars, . . . . .	1	1,589	.....	.....	313	.....			
Total, . . . . .	56	5,654	128	.....	1,591	.....			
Cars in Company's Serv. :									
Gravel Cars, . . . . .	.....	1,706	.....	.....	.....	.....			
Derrick Cars, . . . . .	.....	16	.....	.....	.....	.....			
Caboose Cars, . . . . .	12	119	.....	.....	.....	.....			
Other road Cars, . . . .	8	71	.....	.....	42	Janney.			
Total, . . . . .	20	1,912	.....	.....	42	.....			
Cars Contributed to Fast Freight Line Service, . . . . .	.....	613	.....	.....	.....	.....			
Grand Total Cars, . . .	148	9,228	1,177	.....	2,652	.....			

In addition to those stated the Company owns  $\frac{5}{4}$  of 7 passenger cars, 1 combination car, 1 baggage car, and 2 baggage flat cars with crates in the "Stonington line"; also  $\frac{13}{32}$  of 4 passenger cars in the "Colonial express," and  $\frac{64}{103}$  of 1 dining car.

## Mileage.

## a. MILEAGE OF ROAD OPERATED.

Line in Use.	LINE REPRESENTED BY CAPITAL STOCK.		Line of Proprietary Companies.	Line Operated under Lease.	Line Operated under Contract, etc.	Line Operated under Trackage Rights.	Total Mileage Operated.	RAILS. (Exclusive of Trackage Rights.)	
	Main Line.	Branches & Spurs.						Iron.	Steel.
Miles, single track,	122.44	159.91	14.14	524.01	10.32	17.21	848.03	.....	830.82
Miles of second "	122.44	62.66	11.50	91.24	.....	12.18	300.02	.....	287.84
Miles of third "	21.48	.....	.....	1.90	.....	12.03	35.41	.....	23.38
Miles of fourth "	21.48	.....	.....	1.90	.....	12.03	35.41	.....	23.38
Miles of yard track and sidings,	106.49	50.51	27.86	192.50	11.16	.....	388.52	62.20	326.32
Total Mileage operated (all tracks),	394.33	273.08	53.50	811.55	21.48	53.45	1,607.39	62.20	1,491.74

## b. MILEAGE OF LINE BY STATES AND TERRITORIES.

## 1. Mileage operated by Road making this report:

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Line of Proprietary Companies.	Line Operated under Lease.	Line Operated under Contract, etc.	Total Mileage, Exclud'g Trackage Rights.	Line Operated under Trackage Rights.	Steel Rails, Excluding Trackage Rights.
	Main Line.	Branches and Spurs.						
Connecticut, . .	102.45	97.79	....	367.02	....	567.26	.36	567.26
Massachusetts, .	5.95	....	2.64	129.51	10.32	148.42	4.82	148.42
Rhode Island, .	....	62.12	....	27.48	....	89.60	....	89.60
New York, . .	14.04	....	11.50	....	....	25.54	12.03	25.54
Total Mileage operated (single track)	122.44	159.91	14.14	524.01	10.32	830.82	17.21	830.82

## 2. Mileage owned by road making this report:

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage, Excluding Trackage Rights.	Steel Rails.
	Main Line.	Branches and Spurs.		
Connecticut, . . . . .	102.45	97.79	200.24	200.24
Massachusetts, . . . . .	5.95	.....	5.95	5.95
Rhode Island, . . . . .	.....	62.12	62.12	62.12
New York, . . . . .	14.04	.....	14.04	14.04
Total Mileage Owned (single track),	122.44	159.91	282.35	282.35



**Renewals of Rails and Ties.****NEW RAILS LAID DURING YEAR.**

Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.
Steel, . . .	3,873	74	\$30.00
Steel, . . .	1,360	78	31.28
Total Steel, . .	5,233		\$30.33

**NEW TIES LAID DURING YEAR.**

Kind.	Number.	Average Price at Distributing Point.
No. 1, . . . . .	387,465	.4370
No. 2, . . . . .	66,800	.2286
Total, . . . . .	454,265	.4063

**Consumption of Fuel by Locomotives.**

Locomotives.	COAL—TONS.		Soft Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average pounds consumed per Mile.
	Anthracite.	Bituminous.				
Passenger,	9,656 <sup>640</sup> <sub>2000</sub>	184,207 <sup>1920</sup> <sub>2000</sub>	423	194,075 <sup>1560</sup> <sub>2000</sub>	6,353,964	61.09
Freight,	768 <sup>328</sup> <sub>2000</sub>	150,380 <sup>1190</sup> <sub>2000</sub>	242 <sup>5</sup> <sub>8</sub>	151,270 <sup>1143</sup> <sub>2000</sub>	3,815,751	79.29
Switching,	.....	55,913 <sup>670</sup> <sub>2000</sub>	145	55,986 <sup>670</sup> <sub>2000</sub>	2,377,089	47.10
Construction,	.....	12,743 <sup>825</sup> <sub>2000</sub>	26 <sup>4</sup> <sub>8</sub>	12,757 <sup>825</sup> <sub>2000</sub>	583,600	43.72
Pay,	.....	1,603	3	1,604 <sup>1000</sup> <sub>2000</sub>	72,069	44.53
Total,	10,424 <sup>1968</sup> <sub>2000</sub>	404,849 <sup>605</sup> <sub>2000</sub>	840 <sup>1</sup> <sub>8</sub>	415,694 <sup>628</sup> <sub>2000</sub>	13,202,473	62.97

Average cost at distributing point: Anthracite Coal, \$3.92; Bituminous Coal, \$2.76; Wood, \$3.36; total fuel consumed, \$2.79.

## Accidents to Persons—State of Connecticut.

## EMPLOYEES.

Kind of Accident.	TRAINMEN.		SWITCHMEN, FLAGMEN, AND WATCHMEN.		OTHER EMPLOYEES.		TOTAL.	
	Killed.	Injured	Killed.	Injured	Killed.	Injured	Killed.	Injured
Coupling and Uncoupling, Falling from Trains and Engines, . . . . .	3	80	..	19	..	..	3	99
Overhead Obstructions, . .	15	21	2	3	2	..	19	24
Collisions, . . . . .	1	9	..	1	..	..	1	10
Derailments, . . . . .	..	8	1	..	..	..	1	8
Other Train Accidents, . .	..	5	..	..	..	..	..	5
At Stations, . . . . .	..	1	1	..	1	2	2	3
Other Causes, . . . . .	..	8	..	1	1	6	1	15
Other Causes, . . . . .	2	8	2	5	12	14	16	27
Total, . . . . .	21	140	6	29	16	22	43	191

## OTHERS.

Kind of Accident.	PASSENGERS.		TRESPASSING.		NOT TRESPASSING.		TOTAL.	
	Killed.	Injured	Killed.	Injured	Killed.	Injured	Killed.	Injured
Collisions, . . . . .	..	1	..	..	..	..	..	..
At Highway Crossings, . .	..	..	..	1	12	9	12	10
At Stations, . . . . .	1	2	4	3	3	2	7	5
Other Causes, . . . . .	4	6	53	44	1	..	54	44
Total, . . . . .	5	9	57	48	16	11	73	59

A BRIEF DESCRIPTION OF ACCIDENTS UNDER "OTHER TRAIN ACCIDENTS"  
AND "OTHER CAUSES."

## "OTHER TRAIN ACCIDENTS."

*Trainmen—Injured, 1.*

February 6, 1893. James McCarthy, freight brakeman, leg injured by air hose coupling parting at Plainville, Conn.

*Switchmen, Flagmen, and Watchmen—Killed, 1.*

September 24, 1892. The steam chest on switch engine No. 130 blew up in New London yard, top of steam chest struck Yard Brakeman Charles Nolan on the head and killed him almost instantly.

*Other Employes — Killed, 1.*

April 18, 1893. Cylinder head blew out of engine on passenger train at Stratford station, struck Thomas Sheehan, section man, fatally injuring him.

*Other Employes — Injured, 2.*

August 31, 1892. Patrick Shea, track laborer, leg broken by being hit with a piece of cylinder head that blew out.

April 18, 1893. Cylinder head blew out of engine on passenger train at Stratford, struck Matt McGrath, section man, inflicting scalp wound.

*"OTHER CAUSES."**Trainmen — Killed, 2.*

September 8, 1892. George Ives, brakeman, caught foot in guard rail, run over and died same night.

November 2, 1892. Frank Sherman, freight brakeman, while boarding moving car at Stamford came in contact with switch stand, receiving injuries from which he died.

*Trainmen — Injured, 8.*

September 8, 1892. James Wood, brakeman, was struck on head and back by a stake and injured, while "staking out" car for side-track at Thompsonville.

September 19, 1892. Joseph Malone, freight brakeman, while running with coupling, at Noroton, fell, breaking wrist in two places.

September 28, 1892. Train No. 412 struck Fireman Charles Webster, at Shore Line Junction (Cedar Hill), while attempting to cross tracks; his side was hurt and arm was badly broken.

October 1, 1892. G. Largess, freight brakeman, head slightly injured by hitting freight house, Simsbury, Conn.

December 20, 1892. John J. Graham, conductor, caught between caboose car and post of electric signal, just south of Flower Street, Hartford; knocked from steps of car and injured about the hips and internally.

February 2, 1893. James McCool, freight brakeman, foot slightly injured by striking platform at Plainville, Conn.

April 13, 1893. Andrew Ide, conductor, jammed between cars, receiving a few bruises.

June 15, 1893. Thomas McNamara, brakeman, foot caught between foot-board of car he was on and the car next to it while switching cars at Hartford freight yard.

*Switchmen, Flagmen, and Watchmen — Killed, 2.*

August 14, 1892. Extra west engine No. 189 struck and instantly killed Thomas McGrath, while at work in New London yard.

William Brown, trackwalker, struck by train No. 300, near Derby; supposed to have been murdered and body placed upon track.

*Switchmen, Flagmen, and Watchmen — Injured, 5.*

July 1, 1892. Charles Dyas, yard brakeman, got foot caught in guard rail at Bridgeport; foot run over and crushed.

May 7, 1893. James Stanley, yard brakeman, fell while attempting to board moving train at Bridgeport; left leg broken and head crushed and bruised.

May 25, 1893. Martin Feeney, yard brakeman, struck by wide car while walking through yard at Stamford; collar bone broken.

June 21, 1893. John Corrigan, yard brakeman, fell in front of moving switch engine at Bridgeport; right leg caught and bruised.

Wm. Cullough fell while going from gate-house in haste to lower the gates, and leg injured.

*Other Employees — Killed, 12.*

July 6, 1892. Train No. 406 struck Section Laborer James Brady while at work near Saybrook station, and he was so badly injured that he died the following day.

July 8, 1892. Joe Boliver, section man, struck by train at Naugatuck Junction while at work on track, receiving injuries from which he died.

August 22, 1892. Thomas Dunleary, section man, was run over by train No. 70, near Yalesville station, and killed.

August 31, 1892. B. F. Holmes, painter, instantly killed while stooping to pick up paint brush which he had forgotten, and was struck by train.

November 6, 1892. Michael Moran, section man, employed on North Haven section, evidently struck on the head by passing train, and killed.

November 29, 1892. Patrick O'Neil, section man, was struck by engine on train No. 241, at Windsor Locks, and fatally injured. He was walking on track and failed to hear warning whistle and bell.

December 31, 1892. Joseph Murphy, trackwalker, struck by passenger train at Stratford, and instantly killed.

January 6, 1893. Andrew Brousky, section man, struck by engine while at work on track at New Haven, receiving injuries from which he died.

February 22, 1893. M. Murphy, section man, struck by train while walking track at Bridgeport, receiving injuries from which he died.

March 5, 1893. Frank Baker, foreman extra gang, struck by passenger train while at work on track at Stamford, and instantly killed.

April 7, 1893. John Fillburn, brick mason, attempted to get on train at Berlin after train had started from station; fell between cars under train, receiving fatal injuries.

April 23, 1893. Theodore Dunwell of Engineering Corps, struck by passenger train while walking on track at Naugatuck Junction, and instantly killed.

*Other Employees — Injured, 14.*

August 11, 1892. Patrick McMahon, stone mason, riding in baggage car with arm out of window, struck his hand against signal post, just south of Broad Street bridge, Hartford, and severely injured arm and wrist.

August 15, 1892. D. Leary, section foreman, fell from hand-car at West Haven; leg broken in two places.

September 28, 1892. James Burns, dock laborer, struck by passenger train while crossing track at Bridgeport; slight scalp wound and face cut.



November 30, 1892. H. H. Gilbert, section foreman, while at work on switch at East Bridgeport, got hand caught between rails; left hand bruised and one finger broken.

November 29, 1892. John Connors, section man, was struck by engine on train No. 241, at Windsor Locks, and had leg broken. He was walking on the Suffield Branch track, and failed to hear warning whistle or bell.

January 12, 1893. Fred Saxton, coal shoveler, fell down hatchway of vessel, at New Haven, and left leg broken.

January 18, 1893. Patrick Savage, trackwalker, stepped between sections of broke-in-two train at Glenbrook, and was struck; arm crushed and head cut.

February 9, 1893. John Dunbar, gateman, struck by cars while walking on track at New Haven; arm crushed and head cut.

March 3, 1893. James Geelan, section man, struck by light engine while at work on track at New Haven, and left leg crushed.

April 13, 1893. Michael McNulty, in attempting to pass through freight train in Round House, had his foot crushed between two cars.

May 11, 1893. John Doody, foreman, and Joseph Strasneck, section hand, injured by hand-car on School House Crossing, south of Milldale, Conn., by train No. 606.

June 21, 1893. Charles Miller, laborer; hand caught while loading iron on car at Glenbrook; left hand cut and bruised.

June 24, 1893. Michael Racanello, section man, boarded switch train at Freight Branch, Hartford, and rode to N. Y. & N. E. Crossing, near Water street, jumped from train, fell, and wheels ran over one arm, rendering amputation necessary.

#### *Passengers — Killed, 4.*

October 24, 1892. William Fleming, a passenger on train No. 84, jumped or fell off forward end of smoking car at Meriden, before train stopped, and found under coach, dead. Rear truck of smoker and both trucks of first coach evidently passed over his head.

December 24, 1892. A. J. Clark fell from moving train at Fairfield, receiving injuries from which he died.

February 20, 1893. James Phillips jumped from train at Milldale, Conn.; died from injuries received, some days afterward, at New Haven Hospital; both feet cut off.

March 3, 1893. George Shears, while under the influence of liquor, attempting to board moving train at Kent, Conn., fell under the cars, receiving injuries causing his death the same night.

#### *Passengers — Injured, 6.*

August 13, 1892. George Appleby, a member of Battery A, and a passenger on one of the special military trains from New Haven to East Lyme, while sitting in doorway of baggage car, hanging his feet out of door, struck bridge near Black Point, near East Lyme, was thrown to the ground and cut about head and back.

August 13, 1892. Patrick Phalen, a member of C. N. G., and passenger on one of the special military trains from New Haven to East Lyme, while hanging feet out of baggage car door, struck Miamicock Bridge, and foot badly bruised.

August 20, 1892. R. J. Plumb jumped from train of N. Y. & N. E. R. R., south of Asylum Street Bridge, Hartford, and attempted to get on our train, No. 61. He was thrown to the ground, receiving several cuts about the body and broken ribs.

November 8, 1892. Benjamin Lindsey jumped from train about 1,500 feet north of Birmingham Station, breaking his knee-pan.

December 29, 1892. Irvine Taylor, Hartford, fell from train north of Berlin Station; injured about head and arm; was intoxicated.

June 21, 1893. William Parker, aged 13, fell from rear platform, after train had stopped at Meriden. He was climbing over rail or gate; arm broken.

*Trespassing — Killed, 53.*

July 3, 1892. The body of James Norton was found lying alongside of track about a mile and a half south of Derby Junction. When last seen he was under the influence of liquor.

July 6, 1892. Eli Vilandre, struck and killed by night train about three-quarters of a mile south of North Haven Station. Remains were discovered by trainmen on south-bound extra freight train. He was at North Haven about midnight, intoxicated.

July 12, 1892. F. Nehring, struck by train while walking on track at Glenbrook, and instantly killed.

July 26, 1892. James King, while trespassing on track near Branford Piling, was struck and instantly killed.

August 5, 1892. John Smith, struck by side of draw at Bridgeport, while stealing a ride on freight train, and received injuries from which he died.

August 8, 1892. Edward C. Naylor, struck by engine at Hartford, and fatally injured. He was walking on N. Y. & N. E. tracks, stepped off to avoid N. E. train, and walked in front of our train.

August 26, 1892. William Gardner, struck by train while walking on track at South Norwalk, and instantly killed.

September 8, 1892. The body of Jerry Manwaring was found side of track west of East Lyme. It is thought he was struck by some night train.

September 21, 1892. Dominick Maffeo attempted to cross the track on Bridge Street, New Haven, in front of switch train; struck by engine and killed.

September 22, 1892. Albert Helmer, struck by train while walking on track at South Norwalk, and received injuries from which he died.

September 27, 1892. W. W. Lowden, struck by train while walking on track at Greenwich, and instantly killed.

September 29, 1892. Michael Mealy, struck by train north of Windsor Locks Station, and received fatal injuries; driving cows across the track.

October 10, 1892. Jack Williams, found dead beside track at Stamford, supposed to have been struck by train while walking on track.

October 11, 1892. Sylvester Welch, struck and instantly killed, while trespassing on tracks near Cedar Hill station.

October 15, 1892. Unknown man struck by train while walking on track at Glenbrook, and instantly killed.

October 24, 1892. Body of unknown man found on track at Westport, supposed to have fallen from or been struck by train.

October 25, 1892. James Smith, struck and instantly killed while trespassing on tracks at South Lyme station; apparently asleep on the track.

December 2, 1892. J. Hughes, trespassing on track near Pine Orchard station, struck and instantly killed.

December 3, 1892. Unknown man struck by train while walking on track at Stratford, receiving injuries from which he died.

December 12, 1892. Body of Phillip Marchesso found on track at East Port Chester, supposed to have been struck by train while walking on track.

December 19, 1892. Body of James McBrien found on track at Darien.

January 6, 1893. Michael Waters, struck by train just south of Bethel station. Engineer thought he saw a basket between the rails, but on arrival at Bethel found some clothing on pilot. Investigation showed that man was lying between rails and had been killed.

January 7, 1893. Matthew Barry, struck on head by steam chest at Middletown. He was walking outside of rail, just before engine struck him he staggered toward the track; skull fractured.

January 14, 1893. George R. Elkins, stepped on track in front of train at West Haven, was struck and killed.

January 14, 1893. Edward Buddington, struck by train and killed while walking on track near North Bridgeport station. He had his coat collar turned up, and a cap drawn down over his ears, and presumably did not hear the warning whistle.

January 21, 1893. Hamilton Sparrow, a colored man, struck and killed by engine near Hayden's station, while walking on track.

January 29, 1893. The body of John Harrington was found side of track near Stony Creek, and it was thought he was struck by some night train.

February 16, 1893. Thomas Cullen, struck by train while crossing track at Bridgeport, and instantly killed.

February 24, 1893. May Avery, struck and killed by train at Berlin. She was walking on east track going north. Freight train going south on the west track at the time. Body was found on the engine at Hartford.

March 4, 1893. Alonzo Sutton, Ridgefield, was walking from town on track and stepped to one side to avoid train, but in some unknown manner slipped and fell under train and was killed.

March 9, 1893. Fred Kline, struck by train while walking on track at Rowayton, and instantly killed.

March 28, 1893. Unknown man struck by train while walking on track at Rowayton and instantly killed.

April 7, 1893. Dennis Willcox, killed while walking on track near Granby, Conn.

April 8, 1893. Generoso Orciolo, struck by train while walking on track at Woodmont and killed.

April 10, 1893. A man named Ludwick Lines was found beside the track three miles south of Cornwall Bridge. Lines was demented and wandered from his home.

April 16, 1893. The body of David Curtin was found side of tracks at Leete's Island, having evidently been struck by some night train.

April 19, 1893. Unknown man struck by train while walking on track at Greenwich and instantly killed.

May 1, 1893. Unknown man found dead beside track near Middletown station; cause and manner of death unknown.

May 3, 1893. Thomas Colman, struck by train while walking on track at Stamford and killed.

May 9, 1893. Edgar Hudson, struck by passenger train while attempting to steal a ride on freight train at Stamford and killed.

May 16, 1893. Dominico Meloro, struck by train while walking on track at Greenwich and instantly killed.

May 18, 1893. Benjamin Ferman, killed by night train, one mile north of Stock Yard, Hamden, Conn.

May 20, 1893. Patrick J. Connery, struck by train and killed while walking on track north of Branchville station.

May 25, 1893. Thomas Hillhouse, struck and instantly killed by extra work engine, while walking on track near Black Hall station.

May 27, 1893. Thomas Lloyd, struck by train while walking on track at Stamford and killed.

June 3, 1893. John Weeks, struck by train and instantly killed while walking tracks.

June 13, 1893. Unknown Italian, struck by train (light engine) while walking on track at West Haven and killed.

June 21, 1893. Charles Brennan, 14 years old, run over by train at Shelton, Conn., while jumping on and off cars while in motion. He was driven from tracks by conductor, but persisted in getting on the train.

March 8, 1893. Miss Julia Hall, an insane woman, while trespassing on the track near North Cromwell, committed suicide by throwing herself in front of a train.

John Fitzgerald, riding on cars being switched at Thomaston, fell under wheels and killed.

F. P. Davidson, intoxicated, lying on track near Derby; run over and killed by train.



Larry Farrell, supposed to have been stealing a ride on truck of train; fell off, run over and killed.

Nicholas Santo, crossing between cars at Waterbury, caught between cars and crushed.

*Trespassing — Injured, 44.*

July 4, 1892. John Gamps, struck by train while trespassing at New London, and right ankle broken.

July 20, 1892. M. Zeldowitz, struck by train while walking on track at Noroton, and leg bruised.

July 25, 1892. Dan McCarthy, trespasser, fell between train and platform at Plainville, Conn., while trying to board freight train; slightly injured.

July 30, 1892. Morris Kelley, while walking on Hamilton Street Bridge, New London, struck by switch engine, receiving severe wound on back of head.

August 8, 1892. John Connor, struck on head and hand crushed by train at Middletown. He was intoxicated and sitting on the edge of platform.

August 20, 1892. Richard Perry, right hand crushed by falling from car near Webster street, New Haven, Conn., while stealing a ride on switcher.

August 30, 1892. Joe Warshowsky had three ribs broken and foot injured. He was driving over tracks at Drew Street crossing, Meriden, and wagon was struck by engine of train No. 208. He was cautioned not to drive on tracks as the train approached.

September 10, 1892. Patrick McNamarra, walking on track at South Norwalk, stepped up bank to allow train to pass, slipped down and last truck ran over his foot.

October 12, 1892. Michael Murphy, jumped from moving train on which he was stealing a ride at Bridgeport; right foot cut off, leg broken and body and head bruised.

October 19, 1892. Michael Reardon, foot run over while attempting to board train at Noroton to steal ride.

October 20, 1892. John Doyle, struck by train while walking on track at Bridgeport; shoulder dislocated, arm broken, and scalp wound.

October 30, 1892. J. H. Ross, stealing a ride on freight train, jumped from train when near Yalesville and received a bad cut on his head.

October 31, 1892. Fiorante Dariva and Alberto Fararo, struck by train while walking on track at Stamford; former leg broken, latter scalp wounds.

November 8, 1892. John Jenofski, attempted to cross the tracks on Bridge Street Crossing, New Haven, in front of switch train, struck by engine; hip broken and otherwise injured. Said to be intoxicated.

November 18, 1892. Peter Murphy, struck by train while standing beside track at Bridgeport; scalp wound and rib broken.

November 22, 1892. Frank Leach, jumped from train on which he was stealing a ride at South Norwalk, receiving bruises.

December 14, 1892. Henry Le Bease, struck by train while walking on track at Milford; right arm and left leg broken.

December 16, 1892. Burt Blueski, run into side of passenger train at Bridgeport; face scratched and body bruised.

February 2, 1893. Michael Casey, struck by engine, receiving injuries to head and body. He was walking on track near Wilson's Station and did not hear the approaching train.

February 17, 1893. Julia Connell, intoxicated, trespasser, struck by train near Willimantic station.

February 26, 1893. LeRoy Miner, struck by extra engine while trespassing on Shaw's Cove bridge, New London, was thrown into the water but not seriously injured.

March 1, 1893. George Terry, a colored man, struck by engine. He was lying alongside of rail, near Hayden station, in a drunken condition; hip badly injured and other injuries of a serious nature.

March 1, 1893. Michael McGlory, struck by train at Fair Haven station while trespassing on tracks; head cut and hand crushed.

March 3, 1893. Katie Schoen, struck by steps of coach in Danbury yard; not badly hurt.



March 15, 1893. Horace Stevens, attempted suicide by throwing himself in front of train near Westchester station.

March 23, 1893. Peter Antoni, struck by engine No. 65 at Berlin, knocked down and right hip injured.

April 3, 1893. John Druse, while under the influence of liquor, laid down alongside of track three-quarters of a mile north of New Milford, and was struck by train ; not seriously injured.

April 24, 1893. Peter Nalan, struck by engine near grade crossing, east of tunnel, Hartford, while walking on track ; one leg cut off and head wounded.

May 9, 1893. Byron E. Wallace, attempted to get on caboose car of train at Meriden, fell upon track and one wheel ran over his right leg, rendering amputation necessary.

May 13, 1893. George Stewart, struck by train while walking on track at Glenbrook ; right leg broken and head cut.

May 21, 1893. Aaron Gray, run over by New London switch engine, while asleep on track, and crushed his foot.

May 22, 1893. Thomas F. Dowling, struck by engine of train No. 83 at Walnut Street Crossing, Hartford ; arm broken and otherwise injured. He was standing on west track waiting for N. Y. & N. E. freight train to pass. He did not hear or see approaching No. 83.

June 20, 1893. Tommy O'Donnell, a child, struck by train near Housatonic Ice Co.'s ice house, Bridgeport, Conn. The child attempted to cross the track ahead of the train ; the parents of the child lived near the track.

June 22, 1893. Edward Carney, fell from train on which he was stealing a ride at New Haven ; head cut.

June 23, 1893. G. Garbara, struck by train while walking on track at South Norwalk ; head cut.

Pasquale Calabrese, struck by extra work train while trespassing on tracks near Blackstone's Bridge, Branford, and bruised left ankle and right arm.

John Fay, struck by extra work train while trespassing on tracks between Long Wharf and Water Street crossing, New Haven, Conn., injuring him slightly.

F. P. Davidson, intoxicated, stepped from between car on siding near Derby, stumbled and fell under train ; head injured.

Eugene Madeam, a boy, playing on track near Torrington, ran ahead of cars being switched ; leg cut off.

Peter Conway, attempted to board excursion train passing Derby Junction ; leg broken.

Paul Pugun, crossing over cars at Torrington, foot caught between draw heads and crushed.

Frank Klowarski, supposed to have been stealing a ride ; one leg cut off ; body found at Union City.

Thomas Ryan, child 18 months old, pushed from track by passing engine near Thomaston ; slight bruise on head.

#### *Not Trespassing—Killed, 1.*

July 29, 1892. Mr. A. L. Winton, killed a short distance south of Sword's Lane on Housatonic avenue, Bridgeport, Conn. When first seen he was holding a horse attached to a load of lumber ; when train came along the horse made a lunge towards the track, carrying Mr. Winton against the cars with the horse against him.

## Characteristics of Road.

WORKING DIVISION OR BRANCHES.			ALIGNMENT.		
From—	To—	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Woodlawn Jc., N. Y.	New Haven, Conn.	60.75	86	21.65	39.10
Harlem R., N. Y.	New Rochelle, N. Y.	11.50	18	3.47	8.03
Stamford, Conn.	New Canaan, Conn.	7.66	21	3.61	4.05
New Haven, Conn.	Springfield, Mass.	61.69	53	22.79	38.90
Belle Dock, Conn.	Shore Line, N. Hav.	1.00	2	.74	.26
Berlin, Conn.	New Britain, Conn.	3.18	6	.74	2.44
Berlin, Conn.	Middletown, Conn.	9.70	13	4.10	5.60
Hartford Freight	Branch, Conn.	.84	4	.50	.34
Windsor L'ks, Conn.	Suffield, Conn.	4.32	5	.93	3.39
New Haven, Conn.	Willimantic, Conn.	51.50	85	20.11	31.39
Turnerville, Conn.	Colchester, Conn.	3.59	8	1.02	2.57
New Haven, Conn.	New London, Conn.	48.53	65	19.00	29.53
Hartford, Conn.	Fenwick, Conn.	46.20	122	15.27	30.93
New Haven, Conn.	Conway Jc., Mass.	94.64	159	24.16	70.48
Farmington, Conn.	New Hartf'd, Conn.	14.09	44	7.71	6.38
Westfield, Mass.	Holyoke, Mass.	10.32	15	2.05	8.27
Northampton, Ms.	Williamsburg, Mass.	7.51	25	3.20	4.31
S. Deerfield, Mass.	Turners Falls, Mass.	10.07	16	2.14	7.93
Naugat'ck Jc., Conn.	Winsted, Conn.	56.55	244	31.93	24.62
Waterbury, Conn.	Watertown, Conn.	4.44	8	2.46	1.98
*Bridgeport, Conn.	Pittsfield, Mass.	110.62	300	53.48	57.14
*Van Deusen v'le, Ms.	N. Y. State Line.	9.54	30	4.50	5.04
Botsford, Conn.	Huntington, Conn.	9.79	36	5.56	4.23
Brookfield Jc., Conn.	Danbury, Conn.	5.36	10	1.50	3.86
Danbury, Conn.	Wilson Point, Conn.	26.28	72	10.50	15.78
Branchville, Conn.	Ridgefield, Conn.	3.97	17	1.97	2.00
Shelton, Conn.	Huntington, Conn.	3.79	11	1.23	2.56
New Haven, Conn.	Ansonia, Conn.	12.90	27	5.60	7.30
Union Dep., N. Hav.	N. H. & Derby R. R.	1.66	5	.56	1.10
Providence, R. I.	New London, Conn.	62.11	47	15.51	46.60
Auburn, R. I.	Buttonwood, R. I.	9.90	21	3.24	6.66
Auburn, R. I.	Pontiac, R. I.	4.69	9	1.43	3.26
Auburn, R. I.	Providence, R. I.	3.58	2	.85	2.73
Pontiac, R. I.	Hope, R. I.	5.67	25	3.14	2.53
Providence, R. I.	Worcester, Mass.	43.31	93	17.17	26.14
E. Providence, R. I.	Valley Falls, R. I.	7.00	14	2.30	4.70
Poquonnock Jc., Ct.	Groton, Conn.	4.10	7	1.95	2.15
Stonington Loop at	Stonington, Conn.	.97	4	.68	.29
Total, . . . . .		†833.32	1,729	318.75	514.57

† The difference of 2.50 miles between the total mileage shown on this page, 833.32 miles, and that shown on page 286, 830.82 miles, is due to the fact that on the latter page only one-half of the joint track from the passenger station at Providence to Boston switch is included, while on this page the total mileage, viz., 5 miles, is given.

## Characteristics of Road.—Continued.

## PROFILE.

Length of Level Line.  Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate length of Descending Grades. Miles.
7.75	36	709	26.00	35	777	27.00
4.49	12	145	4.74	6	74	2.27
.44	1	327	7.07	1	4	.15
12.37	33	475	27.50	29	341	21.82
.40	1	14	.60			
.18	1	131	2.90	1	1	.10
3.54	8	47	2.04	13	83	4.12
.84						
.75	5	99	2.65	2	17	.92
4.59	19	1,178	26.61	16	956	20.30
.74	4	44	.95	5	85	1.90
8.83	41	518	18.96	38	532	20.74
20.26	19	282	11.15	22	311	14.79
30.48	57	1,028	37.74	49	800	26.42
2.30	12	243	9.33	6	67	2.46
3.14	5	190	3.63	2	225	3.55
.37	3	368	7.14			
4.54	8	81	2.81	5	116	2.72
8.79	64	929	36.50	42	230	11.26
.30	5	219	3.84	3	6	.30
14.00	9	1,350	72.41	8	350	24.21
1.00	4	100	4.57	2	150	3.97
.40	1	397	9.21	1	10	.18
.50	1	60	3.00	2	40	1.86
4.00	15	544	5.00	8	413	17.28
.1		80	3.97			
2.46	1	160	1.33			
2.20	12	258	4.80	9	242	5.90
.06	2	20	.82	2	9	.78
10.23	27	410	25.28	28	417	26.60
.80	8	96.9	3.42	8	135	5.68
.23	17	79	2.23	12	90.5	2.23
1.97				3	41	1.61
.39	24	200.4	3.95	14	52	1.33
9.53	21	525.3	29.06	4	56.5	4.72
.61	4	43	1.62	4	11	4.77
.78	3	50	1.38	2	5.4	1.94
.97						
165.23	484	11,400.6	404.21	382	6,647.4	263.88

\*The alignment and profile from Bridgeport to Pittsfield and from Van Dusen'sville to New York State Line, as shown on the opposite page, has been given from best information at hand, but cannot be verified as to .98 miles.

## BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, .	160	3,714	8	8	..	385	..
Iron, .	381	34,142	3	10	..	1,543	..
Wooden, .	197	10,059	3	8	..	1,814	..
Total, .	738	47,916	2	..	..	..	..
Trestles, .	111	46,107	5	26	..	6,694	..
Tunnels, .	1	250	..	250	..	250	..

## OVERHEAD CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings :			
Bridges, . . . . .	237	14	..
Conduits, . . . . .	3	14	3
Total, . . . . .	240	..	..
Overhead Railway Crossings :			
Bridges, . . . . .	15	14	..
Conduits, . . . . .	1	15	..
Total, . . . . .	16	..	..
Tunnels, . . . . .	1	14	2

GAUGE OF TRACK — 4 feet, 8½ inches; 282.35 miles.

## TELEGRAPH.

Owned by another company, but located on property of road making this report:

Miles of Line.	Name of Owner.	Name of Operating Company.
282.35 46.20	Western Union Telegraph Co. Connecticut Telegraph Co.	Western Union Telegraph Co. Connecticut Telegraph Co.



## Car Mileage.

Individuals, Co-operative Fast Freight Lines, and Stock Companies, to which the Company making this report pays mileage for the use of cars :

American Refrigerator Transit Co.	Grossman Palace Horse Car Co.
Arms Palace Horse Car Co.	Hammond Refrigerator Line.
Armour & Co.	Kansas City Dressed Beef Line.
Atlanta Stone, Coal, and Lumber Line.	Morris Refrigerator Line.
Burton Stock Car Co.	Merchants' Despatch.
Blue Line.	Mutual Oil Co.
California Fruit Transportation Co.	National Oil Co.
Cold Blast Transportation Co.	National Despatch Line.
Canada Cattle Car Co.	Peerless Refining Co.
Canada Southern Line.	Red Line.
Canadian Pacific Despatch.	St. Louis Refrigerator Car Co.
California Fast Freight Line.	Streets' Stable Car Line.
Chicago Refrigerator Car Co.	Sun Oil Line Co.
Cleveland Refining Co.	Solway Process Co.
Delaware Oil Co.	Swifts' Refrigerator Line.
Emery Manufacturing Co.	Star Union Line.
Erie Despatch.	Swift & Co.
Eastman Fast Freight Car Heater Co.	Southern Iron Car Line.
East St. Louis Dressed Beef Co.	Tropical Transportation Co.
Empire Line.	Union Tank Line.
Empire Oil Works.	Westmoreland Coal Co.
Great Eastern Line.	White Line.

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, Charles P. Clark, President, and H. M. Kochersperger, Comptroller, of the New York, New Haven & Hartford Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company ; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief ; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

CHARLES P. CLARK,

*President.*

H. M. KOCHERSPERGER,

*Comptroller.*

Subscribed and sworn to before me this 15th day of September, 1893.

A. S. MAY,

*Notary Public.*

# NORWICH & WORCESTER RAILROAD CO.

## History.

Name of common carrier making this report? Norwich & Worcester Railroad Company.

Date of organization? June 22, 1836.

Under laws of what Government, State, or Territory organized? Massachusetts and Connecticut.

What carrier operates the road of this company? New York & New England Railroad Company.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
EDWARD L. DAVIS,	Worcester, Mass.,	Second Wed. in Jan., 1894.
THOMAS B. EATON,	" "	" " "
JOSIAH H. CLARKE,	" "	" " "
WILLIAM A. SLATER,	Norwich, Conn.,	" " "
GEORGE H. BALL,	Boston, Mass.,	" " "
FRANCIS H. DEWEY,	Worcester, Mass.,	" " "
A. GEORGE BULLOCK,	" "	" " "
CHARLES P. COGSWELL,	Norwich, Conn.,	" " "
WILLIAM T. HART,	Boston, Mass.,	" " "

Total number of stockholders at date of last election? 873.

Date of last meeting of stockholders for election of directors? January 11, 1893.

Post-office address of general office, Norwich, Conn.

Post-office address of operating office, Boston, Mass.

## Officers.

Title.	Name.	Location of Office.
President,	GEORGE H. BALL,	40 State Street, Boston, Mass.
Secretary,	M. M. WHITTEMORE,	Norwich, Conn.
Treasurer,	M. M. WHITTEMORE,	" "
Managing Agent,	P. ST. M. ANDREWS,	" "

## Property Leased, or Otherwise Assigned for Operation.

Name of Railroad the income of which from lease, or from other assignment for operation, is included in the Income Account — (p. 303).

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
Norwich & Worcester,	Allyn's Point	Worcester.	New York & New England Railroad Co.	99 year Lease.	66.16
Total Mileage,					66.16

**Contract existing between this Road and the Company by which  
it is operated.**

The Norwich & Worcester Railroad Company leased its property to the Boston, Hartford & Erie Railroad Company or its successors, now the New York & New England Railroad Company, under a ninety-nine years' lease, dating February 9, 1869, the lessee to pay all expenses of operating, interest on bonds, and 8 per cent. dividends on the preferred stock.

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common, Preferred,	66 38,250	\$100 100	\$6,600 3,825,000	\$6,600 2,765,600	8 per ct.	\$216,232
Total, .	38,316	.....	\$3,831,600	\$2,772,200	.....	\$216,232

Manner of Payment for Capital Stock.	Number of Shares Issued during Year.	Cash realized on Amt. Issued during Year.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash : Common,	.....	.....	*66	\$6,600.00
Issued for purchasing of minority stockholders' stock in Nor. & New York Trans. Co., .	1,253	\$219,275	27,656	2,892,443.75
Total, . . . . .	1,253	\$219,275	27,722	2,899,043.75

\* To be converted into Preferred Stock whenever presented. No dividends declared on this.

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
1st Mortgage,	1877	1897	\$500,000.00	\$400,000.00	\$400,000.00	\$419,160.00

**Funded Debt.—Continued.****INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
6 per cent.	March and September.	\$24,000.00	\$24,000.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
M'tge bonds(p. 301),	\$400,000.00	\$400,000.00	\$24,000.00	\$24,000.00

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Cash, . . . . . \$132,991.35 Due from Solvent Companies and Individuals, . . 20,437.33 Other Cash Assets, . . . . 966.19 Balance — Current Liabilities, . . . . . 261,489.46  Total, . . . . . \$415,884.33	Loans and Bills payable, \$275,500.00 Dividends not called for, 3,023.00 Matured Interest Coupons unpaid, including Coupons due July 1, . . . 300.00 Rents due July 1, . . . 129,061.33 Miscellaneous, accrued interest, . . . . . 8,000.00  Total, . . . . . \$415,884.33

Materials and Supplies on hand, \$42,478.62.

**Recapitulation.**

For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 301),	\$2,772,200.00	\$2,772,200.00	66.16	\$41,901.30
Bonds (p. 301), . . .	400,000.00	400,000.00	66.16	6,045.95
Total, . . . . .	\$3,172,200.00	\$3,172,200.00	66.16	\$47,947.25



## Cost of Road, Equipment, and Permanent Improvements.

Item.	EXPENDITURES DURING YEAR.		Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
	Not included in Operating Expenses.				
	Charged to Income Acc't as Permanent Improvements.	Charged to Construction or Equipment.			
Construction:					
Right of Way, . . . . .		*\$15,056.93			
Buildings, Furniture and } Fixtures, . . . . . }	\$1,762.40				
Total Construction, . . . .	\$1,762.40	\$15,056.93	\$3,629,390.18	\$3,616,095.65	\$54,656.83
Total Equipment, estimated, . . . . .			\$179,750.67	\$179,750.67	\$2,716.91
Grand Total Cost Construction, Equipment, etc., }			\$3,809,140.85	\$3,795,846.32	\$57,373.74
Total Cost Construction, } Equipment, etc., State of } Connecticut, . . . . . }		47.92/66.16		\$2,749,349.62	.....

\* There was sold during the year \$15,056.93 of land at Worcester, which reduced Property account that much, and is treated as so much deducted from Construction account during the year.

## Income Account.

Income from Lease of Road, . . . . .	\$240,232.00	
Miscellaneous Income, less Expenses, . . . . .	2,148.49	
Income from other Sources, . . . . .	93,975.00	
Total Income, . . . . .		\$336,355.49
Interest on Funded Debt accrued (p. 302), . . . . .	380.00	
Interest on Interest-bearing Current Liabilities, Accrued, not otherwise provided for, . . . . .	24,000.00	
Total Deductions from Income, . . . . .		24,380.00
Net Income, . . . . .		\$311,975.49
Dividends, 8 per cent., Preferred Stock, 26,403 shares, . . . . .	105,612.00	
27,655 " . . . . .	110,620.00	
		216,232.00
Surplus from Operations of year ending June 30, 1893, . . . . .		95,743.49
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . . .		801,274.07
Additions for Year, . . . . .		95,743.49
Surplus on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .		\$897,017.56

**Stocks Owned.**

Name.	Total Par Value.	Income or Dividend Received.
Norwich & New York Transportation Company, .	\$489,275.00	*\$10,507.95

\* Dividend 57 cents per share paid Jan. 5, 1893, on \$460,875.00, the amount of stock then held by company, 18,435 shares. By terms of the lease this amount was turned over to the New York & New England Railroad Company.

**Miscellaneous Income.**

Item.	Net Miscellaneous Income.
Interest on Deposit, . . . . .	\$2,148.49

**Comparative General Balance Sheet.**

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$3,629,390.18	Cost of Road (p. 303), .	\$3,616,095.65	.....	\$13,294.53
179,750.67	Cost of Equipment (p. 303),	179,750.67	.....	
270,000.00	Stocks Owned (p. 304), .	489,275.00	\$219,275.00	.....
3,107.08	Lands owned, . . . . .	3,107.08	.....	
148,074.52	Cash and Current Assets, .	154,394.87	6,320.35	.....
42,478.62	Other Assets: Materials and Supplies, .	42,478.62	.....	
\$4,272,801.07	Grand Total, . . . . .	\$4,485,101.89	\$225,595.35	\$13,294.53

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$2,646,900.00	Capital Stock (p. 301), .	\$2,772,200.00	\$125,300.00	.....
400,000.00	Funded Debt (p. 301), .	400,000.00	.....	
416,627.00	Current Liabilities, . . .	407,884.33	.....	\$8,742.67
8,000.00	Accrued Interest on Funded Debt, not yet payable, .	8,000.00	.....	
801,274.07	Profit and Loss, . . . . .	897,017.56	95,743.49	.....
\$4,272,801.07	Grand Total, . . . . .	\$4,485,101.89	\$221,043.49	\$8,742.67

**Important Changes during the Year.**

The minority stockholders of the Norwich & New York Transportation Co. sold their stock to the Norwich & Worcester Railroad Co., seven shares of the N. & N. Y. T. Co.'s stock for one share of the N. & W. R. R. Co.'s stock. A few shares at date, June 30, 1893, remain to be transferred.

**Security for Funded Debt.**

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From —	To —	Miles.	
1st Mortgage B'ds,	Allyn's Point, All in	Wilson's. Connecticut.	47.92	\$8,347.24

**Description of Equipment.**

Item.	Total Number at end of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives:					
Passenger, . . . .	7	7	Air.		
Freight, . . . .	5	5	"		
Switching, . . . .	8	8	Steam.		
Total, . . . .	20	20			
Cars in Passenger Service:					
First-class Pass. Cars, .	11	11	Westinghouse	11	Miller Hook.
Combination Pass. Cars,	3	3	"	3	"
Baggage, Express, and Postal Cars, . . . .	3	3	"	3	"
Total, . . . .	17	17	.....	17	
Cars in Freight Service:					
Box Cars, 4 wheels, . .	31				
Box Cars, 8 " . . . .	224				
Coal Cars, 8 " . . . .	184				
Coal Cars, 4 " . . . .	300				
Total, . . . .	739				
Cars in Company's Service:					
Derrick Cars, . . . .	2				
Caboose Cars, . . . .	9				
Other road Cars, . . .	1				
Total, . . . .	12				
Total Cars Owned, . .	768				

## Mileage.

## MILEAGE OWNED BY ROAD MAKING THIS REPORT.

Line in Use.	LINE REPRESENTED BY CAPITAL STOCK.		Line Operated under Contract, etc.	New Line Con- structed during Year.	Total Mileage excluding Trackage Rights.	RAILS.	
	Main Line.	Branches and spurs.				Iron.	Steel.
Allyn's Point } to Worcester, }	66.16	22.47	Sidings.	.30	88.63	27.88	60.75

## Characteristics of Road.

WORKING DIVISION OR BRANCHES.			ALIGNMENT.		
From —	To —	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Allyn's Point	Worcester.	66.16	107	22.48	43.68

## PROFILE.

Length of Level Line.  Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
13.78	14	143	11.72	16	624	40.66

## BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, .	8	253	6	5	..	50	..
Iron, .	13	992	6	20	..	235	..
Wooden, .	17	1,320	..	18	..	285	..
Total, .	38	.....	..	43	..	..	..
Trestles, .	2	111	6	27	6	84	..
Tunnels, .	2	467	..	176	..	291	..



## Characteristics of Road.—Continued.

## HIGHWAY CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings:			
Bridges, . . . . .	5	14	6
Trestles, . . . . .	1	18	..
Total, . . . . .	6	..	..

GAUGE OF TRACK—4 feet, 8 $\frac{1}{2}$  inches; 88.63 miles.

## Telegraph.

Owned by another company, but located on property of road making this report:

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
58.9	267.6	Western Union Tel. Co.	Western Union Tel. Co.

## Oath.

STATE OF MASSACHUSETTS, }  
COUNTY OF WORCESTER. } ss.

We, the undersigned, George H. Ball, President, and M. M. Whittemore, Treasurer, of the Norwich & Worcester Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

GEORGE H. BALL,  
*President.*

M. M. WHITTEMORE,  
*Treasurer.*

Subscribed and sworn to before me this 8th day of August, 1893.

F. W. CUTTING,  
*Justice of the Peace.*

# PHILADELPHIA, READING & NEW ENGLAND RAILROAD COMPANY.

## History.

Name of common carrier making this report? Philadelphia, Reading & New England Railroad Company.

Date of organization? August 1, 1892.

Under laws of what Government, State, or Territory organized? General Railroad Incorporation laws of the State of New York.

If a consolidated company, name the constituent companies. Merger of the Poughkeepsie Bridge Company, Incorporated in New York, May 31, 1871, and the Central New England & Western Railroad Company, formed, July 22, 1889, by consolidation of the Hudson Connecting Railroad Company and the Poughkeepsie & Connecticut Railroad Company.

Date and authority for each consolidation? July 22, 1889, and August 1, 1892. Railroad Incorporation laws of the State of New York.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
A. A. McLEOD,	Philadelphia, Pa.,	First Wed. in Feb'y, 1894.
C. TOWER, JR.,	" "	" " "
W. W. GIBBS,	" "	" " "
JAS. ARMSTRONG,	New York, N. Y.,	" " "
JNO. H. TAYLOR,	Philadelphia, Pa.,	" " "
M. A. VIELE,	New York, N. Y.,	" " "
ARTHUR BROCK,	Philadelphia, Pa.,	" " "
JOS. F. SINNOTT,	" "	" " "
JNO. W. BROCK,	" "	" " "
CHAS. HARTSHORNE,	" "	" " "
W. W. JENKS,	New York, N. Y.,	" " "
C. A. MORGAN, JR.,	Philadelphia, Pa.,	" " "
PIERSON BROWN,	New York, N. Y.,	" " "

Total number of stockholders at date of last election. 92.

Date of last meeting of stockholders for election of directors. February 1, 1893.

Post-office address of general office. Philadelphia, Pa.

Post-office address of operating office. Philadelphia, Pa.

**Officers.**

Title.	Name.	Location of Office.
President,	A. A. McLEOD,	Philadelphia, Pa.
Vice-President,	CHAS. HARTSHORNE,	" "
Secretary,	W. R. TAYLOR,	" "
Treasurer,	W. A. CHURCH,	" "
Comptroller,	D. JONES,	" "
General Manager,	I. A. SWEIGARD,	" "
Division Superintendent,	M. E. BLAINE,	Hartford, Conn.
General Freight Agent,	B. H. BAIL,	Philadelphia, Pa.
General Passenger Agent,	C. G. HANCOCK,	" "

**Property Operated.**

Name of every railroad the operations of which are included in the Income Account (page 312).

1. Railroad Line represented by Capital Stock. 3. Line Operated under Lease for specified sum. 5. Line Operated under Trackage Rights.

Name.	TERMINALS.		Miles of Line for each Road Named.	Miles of Line for each Class of Roads Named.
	From—	To—		
1. Phila., Reading & N. E. R.R.	Ca'bell Hall, N.Y.	Silvernails, N.Y.	57.60	57.60
3. Hartford & Conn. Western.	Hartford, Conn.	Rhinecliff, "	109.75	.....
Dutchess County R. R.	Pou'kepsie, N. Y.	Hopewell Jc., "	12.40	122.15
5. Newburg, Dutchess & Conn.	State Line, N. Y.	Millerton, "	1.25	1.25
Total Mileage Operated,			181.00	181.00

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
<b>Capital Stock:</b>				
Common, . . .	46,000	\$100.00	\$4,600,000	\$4,600,000
Preferred, . . .	20,000	100.00	2,000,000	2,000,000
Total, . . .	66,000	\$100.00	\$6,600,000	\$6,600,000

**Capital Stock.—Continued.**

Manner of Payment for Capital Stock.	Number of Shares Issued during Year.	Total Number of Shares Issued.	Total Cash Realized.
Issue for Consolidation :			
Common, . . . . .	46,000	46,000	\$4,600,000.00
Preferred, . . . . .	20,000	20,000	2,000,000.00
Total, . . . . .	66,000	66,000	\$6,600,000.00

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
1st Mortgage.	1892	1942	\$7,250,000	\$6,250,000	\$6,250,000	\$6,250,000
Income 1st prf.	1892	1952	1,750,000	1,750,000	1,750,000	1,750,000
Income 2d prf.	1892	1952	2,100,000	2,100,000	2,100,000	2,100,000
Total,	.....	.....	\$11,100,000	\$10,100,000	\$10,100,000	\$10,100,000

**INTEREST.**

Amount Accrued during Year on 1st Mortgage,	. . . . .	\$220,833.32
Amount Paid	“ “ “ “ . . . . .	71,940.00

**FIRST MORTGAGE BONDS.**

\$1,000,000.00 not issued.	Int. 5% May and Nov., accrued.	
2,500,000.00.	Int. 4% for 3 yrs. (Sept. 1, 1892, to Aug. 31, 1895), May and Nov., accrued,	\$83,333.32
3,750,000.00.	Int. 4%, Feb. and Aug., accrued,	137,500.00
		<u>\$220,833.32</u>

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mtge. Bds. (p. 310),	\$6,250,000.00	\$6,250,000.00	\$220,833.32	\$71,940.00
Income Bonds (p. 310), . . . . .	3,850,000.00	3,850,000.00	.....	.....
Total, . . . . .	\$10,100,000.00	\$10,100,000.00	\$220,833.32	\$71,940.00



## Current Assets and Liabilities.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Cash, . . . \$441.97 Bills Receivable, . . . 105,197.99 Due from Agents, . . . 47,013.35 Net Traffic Balances due from other Companies, . . . 15,611.33 Due from Solvent Companies and Individuals, . . . 12,480.28 Balance—Current Liabili- ties, . . . 679,728.28  Total, . . . \$860,473.20	Loans and Bills Payable, \$378,312.50 Audited Vouchers and Ac- counts, . . . 404,527.01 Wages and Salaries, . . . 17,907.03 Matured Interest Coupons Unpaid, . . . 59,726.66  Total, . . . \$860,473.20

Materials and supplies on hand, \$57,890.13.

## Recapitulation.

a. For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 309),	\$6,600,000.00	\$6,600,000.00	57.60	\$114,583.33
Bonds (p. 310), . . .	10,100,000.00	10,100,000.00	57.60	175,347.22
Current Liabilities, . .	860,473.20	860,473.20	57.60	14,938.77
Total, . . .	\$17,560,473.20	\$17,560,473.20	57.60	\$304,869.32

b. For mileage operated by road making this report (trackage rights excluded), the operations of which are included in the Income Account (p. 312):

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	AMT. PER MILE OF ROAD.	
					Miles.	Amount.
Philadelphia, Reading & New England R. R., .	\$6,600,000.00	\$10,100,000.00	\$860,473.20	\$17,560,473.20	57.60	\$304,869.32
Hartford & Connecticut Western R. R. Co., . .	2,683,100.00	700,000.00	.....	3,383,100.00	109.75	30,825.51
Dutchess County R. R.,	300,000.00	350,000.00	.....	650,000.00	12.40	52,419.35
Total, . . .	\$9,583,100.00	\$11,150,000.00	\$860,473.20	\$21,593,573.20	179.75	\$120,131.15

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Total Cost to June 30, 1893.	Cost per Mile.
Construction, . . . . .	\$15,857,725.04	\$275,307.72
Equipment, . . . . .	321,936.59	5,589.18
Total, . . . . .	\$16,179,661.63	\$280,896.90

**Income Account.**

Gross Earnings from Operation (p. 312), . . . . .	\$1,023,218.08	
Less Operating Expenses, . . . . .	988,862.44	
Income from Operation, . . . . .		\$34,355.64
Deductions from Income:		
Interest on Funded Debt accrued (p. 310), . . . . .	220,833.32	
Interest on Interest-bearing Current Liabilities accrued, not otherwise provided for, . . . . .	23,308.26	
Rents (p. 314), . . . . .	73,475.83	
Taxes, . . . . .	38,720.41	
Total Deductions from Income, . . . . .		356,337.82
Deficit, . . . . .		321,982.18
Other payments from Net Income, . . . . .		9,398.00
Deficit from Operations of Year ending June 30, 1893,		\$331,380.18
Deficit on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .		\$331,380.18

**Earnings from Operation—Entire Line.**

Passenger Revenue, . . . . .	\$178,428.92	
Mail, . . . . .	8,217.44	
Express, . . . . .	8,649.41	
Other Items, . . . . .	2,084.93	
Total Passenger Earnings, . . . . .		\$197,380.70
Freight Revenue, . . . . .		818,845.26
Other sources, . . . . .		6,992.12
Total Gross Earnings from operation, . . . . .		\$1,023,218.08

**Stocks Owned.**

Name.	Total Par Value.	Rate.	Valuation.
Hartford & Conn. West.R.R.,	\$1,390,000.00	2 per cent.	\$900,063.00

## Operating Expenses.

(Approximate.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway, . . . . .	\$37,387.27	\$77,193.65	\$114,580.92
Renewal of Ties, . . . . .	12,382.04	25,564.77	37,946.81
Repairs of Bridges and Culverts, . . . . .	4,491.53	9,273.51	13,765.04
Repairs of Buildings, . . . . .	1,744.84	12,345.90	14,090.74
Repairs of Docks and Wharves, . . . . .	1,940.00	1,940.00	1,940.00
Other expenses, . . . . .	6,295.00	12,997.06	19,292.06
Total, . . . . .	\$62,300.68	\$139,314.89	\$201,615.57
Maintenance of Equipment :			
Repairs and Renewals of Locomotives, . . . . .	15,495.85	64,504.90	80,000.75
Repairs and Renewals of Passenger Cars, . . . . .	46,960.60	.....	46,960.60
Repairs and Renewals of Freight Cars, . . . . .	.....	8,970.51	8,970.51
Shop Machinery, Tools, etc., . . . . .	514.77	1,062.82	1,577.59
Total, . . . . .	\$62,971.22	\$74,538.23	\$137,509.45
Conducting Transportation :			
Wages of Enginemen, Firemen, and Roundhousemen, . . . . .	39,479.16	67,781.80	106,260.96
Fuel for Locomotives, . . . . .	52,324.70	108,032.93	160,357.63
Water-supply for Locomotives, . . . . .	1,468.35	3,031.65	4,500.00
All other supplies for Locomotives, . . . . .	1,729.53	3,570.88	5,300.41
Wages of other Trainmen, . . . . .	46,662.60	96,342.60	143,005.20
All other train supplies, . . . . .	3,885.21	8,021.65	11,906.86
Wages of Switchmen, Flagmen, and Watchmen, . . . . .	3,960.12	8,176.62	12,136.44
Expense of Telegraph, including Train Dispatchers and Operators, . . . . .	15,167.35	31,315.47	46,482.82
Wages of Station Agents, Clerks, and Laborers, . . . . .	14,260.22	29,442.58	43,702.80
Station supplies, . . . . .	908.84	1,876.44	2,785.28
Car Mileage—Balance, . . . . .	3,445.95	73,263.97	76,709.92
Loss and Damage, . . . . .	.....	2,950.63	2,950.63
Other Expenses, . . . . .	2,098.69	4,333.10	6,431.79
Total, . . . . .	\$184,390.72	\$438,140.02	\$622,530.74

## Operating Expenses.—Continued.

(Approximate.)

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses:			
Salaries of Officers, . . . .	\$1,996.96	\$4,123.04	\$6,120.00
Salaries of Clerks, . . . .	2,349.36	4,850.64	7,200.00
Insurance, . . . .	115.53	238.60	354.13
Rents for Tracks, Yards and Terminals,	312.50	645.52	958.02
Stationery and Printing, . . . .	1,430.37	8,542.35	9,972.72
Other General Expenses, . . . .	375.00	2,226.81	2,601.81
Total,	\$6,579.72	\$20,622.96	\$27,206.68
Recapitulation of Expenses:			
Maintenance of Way and Structures,	62,300.68	139,314.89	201,615.57
Maintenance of Equipment, . . .	62,971.22	74,538.23	137,509.45
Conducting Transportation, . . .	184,390.72	438,140.02	622,530.74
General Expenses, . . . .	6,579.72	20,626.96	27,206.68
Grand Total, . . . .	\$316,242.34	\$672,620.10	\$988,862.44
Perct'ge Expenses to Earnings, ent. line,	62.41	121.74	96.64

## Rentals Paid.

## a. Rents paid for lease of road:

Name of Road.	Interest on Bonds Guaranteed.	Dividends on Stock Guaranteed.	Cash.	Total.
Hfd. & Conn. West. R.R.,	\$35,000.00	\$20,975.83	\$1,000.00	\$56,975.83
Dutchess County R.R. Co.,	16,500.00	.....	.....	16,500.00
Total, . . . .	\$51,500.00	\$20,975.83	\$1,000.00	\$73,475.83

## b. Rents paid for lease of other property:

Designation of Property.	Situation of Property Leased.	Name of Company. Owning Property Leased.	Total.
Newburgh, Dutchess & Conn. R.R.	State Line, N. Y., to Millerton, N. Y.	Newburgh, Dutchess & Conn. R.R.	\$1,000.00



**Comparative General Balance Sheet.****TOTAL ASSETS, JUNE 30, 1893.**

Cost of Road (p. 312), . . . . .	\$15,857,725.04
Cost of Equipment (p. 312), . . . . .	321,936.59
Stocks Owned (p. 312), . . . . .	900,063.00
Cash and Current Assets (p. 311), . . . . .	180,744.92
Materials and Supplies, . . . . .	57,890.13
Profit and Loss, . . . . .	331,380.18
Grand Total, . . . . .	\$17,649,739.86

**TOTAL LIABILITIES, JUNE 30, 1893.**

Capital Stock (p. 309), . . . . .	\$6,600,000.00
Funded Debt (p. 310), . . . . .	10,100,000.00
Current Liabilities (p. 311), . . . . .	860,473.20
Accrued Interest on Funded Debt not yet payable, . . . . .	89,266.66
Grand Total, . . . . .	\$17,649,739.86

**Important Changes During the Year.**

Lease of Dutchess County Railroad for 300 years from February 1, 1892; consideration, interest on outstanding bonds and minimum of \$1,000 per annum for maintenance of organization, and 2 per cent. interest on stock, if earned.

**Contracts, Agreements, etc.**

Adams Express Co.—40 per cent. of gross receipts accrue to Railroad Co.

Mails—U. S. Government—Compensation based on service.

Pullman Palace Car Company furnish cars and retain all receipts for the use thereof.

Western Union Telegraph Company own and operate entire telegraph line; Railroad Company has use of same for railroad business.

**Security for Funded Debt.**

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.	What Equipment or Sec'ties Mortgag'd.	What Income Mortgaged.
	From —	To —	Miles.			
Mortgage, . . .	Campbell Hall, N. Y.	Silvernails, N. Y.	57.60	\$175,347.22	All.	5 per ct. on \$1,750,000 if earned, and an additional 5 per ct. on \$2,100,000 if earned over the above.

## Employees and Salaries.—Entire Line.

Class.	Num- ber.	Total No. of Days Worked.	Total Yearly Com- pensation.	Av. Daily Compensation.
General Officers, . . . . .	4	1,248	\$6,120.00	\$4.90
General Office Clerks, . . . . .	10	3,120	7,200.00	2.31
Station Agents, . . . . .	44	13,719	27,163.68	1.98
Other Station Men, . . . . .	42	13,126	16,539.12	1.26
Enginemen, . . . . .	62	19,344	67,510.56	3.49
Firemen, . . . . .	69	21,528	38,750.40	1.80
Conductors, . . . . .	55	17,160	46,160.40	2.69
Other Trainmen, . . . . .	160	49,920	96,844.80	1.94
Machinists, . . . . .	45	14,040	44,647.20	3.18
Carpenters, . . . . .	40	12,480	28,704.00	2.30
Section Foremen, . . . . .	41	12,589	34,116.20	2.71
Other Trackmen, . . . . .	282	87,690	121,012.32	1.38
Switchmen, Flagmen, and Watchmen, .	33	10,285	12,136.44	1.18
Telegraph Operators and Dispatchers, .	54	16,736	45,355.44	2.71
All other Employes and Laborers, . .	125	39,007	67,482.48	1.73
Total (including "General Officers"),	1,066	331,992	\$659,743.04	\$1.99
Less "General Officers," . . . . .	4	1,248	6,120.00	4.90
Total (excluding "General Officers"),	1,062	330,744	\$653,623.04	\$1.97
Distribution of Above :				
General Administration, . . . . .	14	4,368	13,320.00	3.07
Maintenance of Way and Structures, .	363	112,759	183,832.52	1.63
Maintenance of Equipment, . . . . .	45	14,040	44,647.20	3.18
Conducting Transportation, . . . . .	644	200,825	417,943.32	2.08

## Passenger, Freight, and Train Mileage.—Entire Line.

Item.	Tonnage, No. Passengers, No. Trains, Mileage, No. Cars.	REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
No. of passengers carried earning revenue,	398,135			
Number of passengers carried one mile,	9,035,487			
Average distance carried,	22,694			
Total passenger revenue (p. 312),		178,428	92	
Av. amount received from each passenger,			44	816
Average receipts per passenger per mile,			01	974
Est. cost of carrying each passenger one mile,			03	500
Total passenger earnings (p. 312),		197,880	70	
Passenger earnings per mile of road,		1,098	08	
Passenger earnings per train mile,			49	466
Freight Traffic:				
No. of tons carried of freight earning revenue,	1,012,116			
Number of tons carried one mile,	85,740,558			
Average distance haul of one ton,	84,714			
Total freight revenue (p. 312),		818,845	26	
Av. amount received for each ton of freight,			80	904
Average receipts per ton per mile,				955
Estimated cost of carrying one ton one mile,				784
Total freight earnings (p. 312),		818,845	26	
Freight earnings per mile of road,		4,555	47	
Freight earnings per train mile,			99	420
Passenger and Freight:				
Passenger and freight revenue (p. 312),		997,274	18	
Pass. and freight revenue per mile of road,		5,548	12	
Passenger and freight earnings (p. 312),		1,016,225	96	
Pass. and freight earnings per mile of road,		5,653	55	
Gross earnings from operation (p. 312),		1,023,218	08	
Gross earnings from operation per m. of road,		5,692	45	
Gross earnings from operation per train mile,			83	689
Expenses (p. 312),		988,862	44	
Expenses per mile of road,		5,501	32	
Income from operation (p. 312),		34,355	64	
Income from operation per mile of road,		191	13	
Train Mileage:				
Miles run by passenger trains,	399,021			
Miles run by freight trains,	823,621			
Miles run by mixed trains,				
Total Mileage Trains Earning Revenue,	1,222,642			
Miles run by switching trains,	184,889			
Miles run by construction and other trains,	50,308			
Grand Total Train Mileage,	1,457,839			
Mileage of loaded freight cars—North or East,	No record.			
Mileage of loaded freight cars—South or West,				
Mileage of empty freight cars—North or East,				
Mileage of empty freight cars—South or West,				
Average number of freight cars in train,				
Average number of loaded cars in train,				
Average number of empty cars in train,				
Average number of tons of freight in train,	No record.			
Av. No. of tons of freight in each loaded car,				

## Freight Traffic Movement—Entire Line.

(Approximate.)

Commodity.	Freight Originating on this Road.	Freight Received from Con- necting Roads and other Carriers.	TOTAL FREIGHT TONNAGE.	
	Whole Tons.	Whole Tons.	Whole Tons.	Per Ct.
<b>Products of Agriculture:</b>				
Grain, . . . . .	2,374	95,121	97,495	9.63
Flour, . . . . .	1,095	51,226	52,321	5.17
Other Mill Products, . . . . .	110	215	325	.03
Hay, . . . . .	8,940	36,387	45,327	4.48
Tobacco, . . . . .	115	385	500	.05
Cotton, . . . . .	.....	11,973	11,973	1.18
Fruit and Vegetables, . . . . .	2,543	1,707	4,250	.41
<b>Products of Animals:</b>				
Live Stock, . . . . .	1,040	505	1,545	.15
Dressed Meats, . . . . .	894	2,873	3,767	.37
Other Packing-house Products, . . . . .	315	185	500	.05
Poultry, Game, and Fish, . . . . .	100	200	300	.03
Wool, . . . . .	240	4,010	4,250	.41
Hides and Leather, . . . . .	795	5,550	6,345	.62
<b>Products of Mines:</b>				
Anthracite Coal, . . . . .	.....	379,432	379,432	37.49
Bituminous Coal, . . . . .	.....	60,000	60,000	5.93
Coke, . . . . .	.....	14,550	14,550	1.44
Ores, . . . . .	39,543	24,175	63,718	6.30
Stone, Sand, and other like articles, . . . . .	21,315	14,314	35,629	3.52
<b>Products of Forest:</b>				
Lumber, . . . . .	8,340	55,975	64,315	6.36
<b>Manufactures:</b>				
Iron, Pig and Bloom, . . . . .	16,400	9,053	25,453	2.52
Iron and Steel Rails, . . . . .	.....	14,310	14,310	1.41
Other Castings and Machinery, . . . . .	2,150	17,770	19,920	1.98
Cement, Brick, and Lime, . . . . .	24,348	36,971	61,319	6.06
Agricultural Implements, . . . . .	.....	540	540	.05
Merchandise, . . . . .	8,943	11,539	20,482	2.02
<b>Miscellaneous:</b>				
Other commodities not mentioned above, . . . . .	7,215	16,335	23,550	2.34
<b>Approximated Total Tonnage— Entire Line, . . . . .</b>	<b>146,815</b>	<b>865,301</b>	<b>1,012,116</b>	<b>100.00</b>



## Description of Equipment.

Item.	Number added during Year.	Total Number at end of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Locomotives:						
Passenger, . . . . .		11	11	Westinghouse.		
Freight, . . . . .		17				
Switching, . . . . .		1				
Total, . . . . .		29	11			
Cars in Passenger Service:						
First-Class Passenger Cars, . . . . .		14	14	Westinghouse.	14	Janney.
Combination Passenger Cars, . . . . .		5	5	"	5	"
B'ge, Exp., and Postal Cars, . . . . .		9	9	"	9	"
Total, . . . . .		28	28		28	
Cars in Freight Service:						
Box Cars, . . . . .		162				
Flat Cars, . . . . .		27				
Stock Cars, . . . . .		4				
Coal Cars, . . . . .		303				
Total, . . . . .		496				
Cars in Company's Service:						
Derrick Cars, . . . . .		2				
Caboose Cars, . . . . .	2	19				
Other road Cars, . . . . .	3	8				
Total, . . . . .	5	29				
Total Cars owned, . . . . .		68				
Cars Leased, . . . . .		485				
Grand Total Cars, . . . . .	5	553				

**Mileage.****a. MILEAGE OF ROAD OPERATED.**

Line in Use.	LINE REPRESENTED BY CAPITAL STOCK.		Line Operated under Lease.	Line Operated under Trackage Rights.	Total Mileage Operated.	RAILS.	
	Main Line.	Branches and spurs.				Iron.	Steel.
Miles of single track, . . .	57.60	.....	122.15	1.25	181.00	4.85	176.15
Miles of second track, . . .	4.60	.....	.....	.....	4.60	.....	4.60
Miles of yard track and sidings,	15.80	.....	26.50	.....	41.80	25.10	16.70
Total mileage operated (all tracks),	77.50	.....	148.65	1.25	227.40	29.95	197.45

**b. MILEAGE OF LINE BY STATES AND TERRITORIES.****1. Mileage operated by road making this report:**

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Line Operated under Lease.	Total Mileage excluding Trackage Rights.	Line Operated under Trackage Rights.	RAILS.	
	Main Line.	Branches and spurs.				Iron.	Steel.
New York, . . . . .	57.60	.....	54.90	112.50	1.25	4.85	108.90
Connecticut, . . . . .	.....	.....	67.25	67.25	.....	.....	67.25
Total mileage operated (single track), . . . . .	57.60	.....	122.15	179.75	1.25	4.85	176.15

**2. Mileage owned by road making this report :**

State or Territory.	LINE REPRESENTED BY CAPITAL STOCK.		Total Mileage excluding Trackage Rights.	RAILS.	
	Main Line.	Branches and Spurs.		Iron.	Steel.
New York, . . . . .	57.60	.....	57.60	.....	57.60
Total Mileage owned (single track),	57.60	.....	57.60	.....	57.60

**Renewals of Rails and Ties. — Entire Line.****NEW TIES LAID DURING YEAR.**

Kind.	Number.	Average Price at Distributing Point.
Chestnut and Oak, . . . . .	66,958	57 cents.

## Consumption of Fuel by Locomotives.

Locomotives.	Bituminous Coal — Tons.	Total Fuel Consumed — Tons.	Miles Run.	Average Lbs. Consumed per Mile.
Total, . . . . .	52,861	52,861	1,457,839	72.52
Average cost at distrib. pt.,	\$3.03			

## Accidents to Persons — State of Connecticut.

## EMPLOYEES.

Kind of Accident.	Trainmen Killed.	Trainmen Injured.	Other Employees Killed.	Other Employees Injured.	Total Killed.	Total Injured.
Coupling and uncoupling, Falling from trains and engines, . . . . .	3	24	..	1	3	25
Overhead obstructions, . . . . .	3	15	..	..	3	15
Collisions, . . . . .	..	3	..	1	..	4
Derailments, . . . . .	..	9	..	..	..	9
Other causes, . . . . .	..	1	..	..	..	1
	4	9	2	7	6	16
Total, . . . . .	10	61	2	9	12	70

## OTHERS.

Kind of Accident.	Passengers Injured.	Trespassing Killed.	Trespassing Injured.	Total Killed.	Total Injured.
Derailments, . . . . .	1	..	..	..	1
Other train accidents, . . . . .	2	..	..	..	2
At highway crossings, . . . . .	..	2	..	2	..
Other causes, . . . . .	..	5	1	5	1
Total, . . . . .	3	7	1	7	4

## OTHER CAUSES.

Trainmen killed, 1; struck by engine. Trainmen injured, 1; struck by engine. Switchmen injured, 1; struck by engine. Other employees killed, 2; struck by engine. Other employees injured, 4; struck by engine. One struck by falling rail; 1 foot caught in rail. Four trespassers killed walking on the track; 1 killed stealing ride; 1 injured lying on track.

## Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
From—	To—	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Campbell Hall, .	Silvernails, N. Y.,	57.60	88	15.44	42.16
Hartford, Conn.,	Rhinebeck, N. Y.,	109.75	333	49.76	59.99
Total, . . . . .		167.35	921	65.20	102.15

## PROFILE.

Length of Level Line. Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate length of Descending Grades. Miles.
19.57	28	673.9	22.24	19	545.1	15.79
14.50	75	1,941.1	44.95	83	1,969.2	50.30
34.07	103	2,615.0	67.19	102	2,514.3	66.09

## BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, . . . . .	2	24	..	12	..	12	..
Iron, . . . . .	83	9,884	10	5	..	6,767	3
Wooden, . . . . .	126	2,940	1	5	..	255	..
Total, . . . . .	211	12,848	11	..	..	..	..
Trestles, . . . . .	60	15,298	3	16	..	1,883	..



**Characteristics of Road.**—*Continued.***OVERHEAD CROSSINGS.**

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings: Bridges, . . . . .	15	16	9

GAUGE OF TRACK—4 feet, 8½ inches; 57.60 miles.

**Telegraph.**

Owned by another company, but located on property of road making this report:

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
164.00	397.00	West. Union Tel. Co.	West. Union Tel. Co.

**Oath.**

STATE OF PENNSYLVANIA, }  
COUNTY OF PHILADELPHIA, } ss.

I, the undersigned, D. Jones, Comptroller of the Philadelphia, Reading & New England Railroad Company, on my oath do say that the foregoing return has been prepared under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

D. JONES,  
*Comptroller.*

Subscribed and sworn to before me this 7th day of November, 1893.

C. K. KLINK,  
*Notary Public.*

# RIDGEFIELD & NEW YORK RAILROAD COMPANY.

## History.

Name of common carrier making this report? Ridgefield & New York Railroad Company.

Date of organization? June 1, 1869.

Under laws of what Government, State, or Territory organized? Connecticut and New York. Chartered by the Legislature of Connecticut June 7, 1867. Amendments to charter in Connecticut July 5, 1870; July 6, 1870; July 15, 1874; Feb. 24, 1880; April 2, 1884; Feb. 19, 1886; and May 15, 1889.

Chartered by the Legislature of New York May 6, 1872, chap. 553, and April 12, 1873, chap. 207.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
WILLIAM J. MEAD,	Greenwich, Conn.,	1st Tuesday of June, 1894.
CORNELIUS MEAD,	" "	" "
WILLIAM P. ABENDROTH,	Port Chester, N. Y.,	" "
ELLWOOD BURDSALL,	" "	" "
RICHARD H. BURDSALL,	" "	" "
DAVID L. ADAMS,	New Haven, Conn.,	" "
HIRAM K. SCOTT,	Ridgefield, Conn.,	" "
HIRAM K. SCOTT, JR.,	" "	" "
CECIL C. HIGGINS,	New York City,	" "

Total number of stockholders at date of last election? 121.

Date of last meeting of stockholders for election of directors? June 6, 1893.

Post-office address of general office? Ridgefield, Conn.

## Officers.

Title.	Name.	Location of Office.
Chairman of the Board,	WILLIAM J. MEAD,	Greenwich, Conn.
President,	WILLIAM J. MEAD,	" "
First Vice-President,	ELLWOOD BURDSALL,	Port Chester, N. Y.
Secretary,	HIRAM K. SCOTT,	Ridgefield, Conn.
Treasurer,	HIRAM K. SCOTT,	" "

## Road Projected.

Name.	TERMINALS.		Miles of Line.
	From—	To—	
Ridgefield & New York.	Danbury, Conn.	Port Chester, N. Y.	30.45

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Common, . . . .	25,000	\$50.00	\$1,250,000.00	\$251,800.00

Manner of Payment for Capital Stock.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash, Common, . . . . .	4,108	\$205,400.00
Issued for stock of delinquent subscribers sold at auction, . . . . .	928	14,300.00
Total, . . . . .	5,036	\$219,700.00

**Recapitulation.**

For mileage owned by road making this report:

Account.	Total Amount Outstanding.	AMOUNT PER MILE OF ROAD.	
		Miles.	Amount.
Capital Stock (p. 325), . . . .	\$251,800.00	30.45	\$8,269.29

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
Construction:			
Right of Way, . . . . .	\$15,980.50	\$15,980.50	\$524.80
Grading, and Bridge and Culvert Masonry, . . . . .	154,767.04	154,767.04	5,082.66
Engineering Expenses, . . . .	15,097.97	15,097.97	495.83
Other items, . . . . .	35,014.65	35,014.65	1,149.90
Total Construction, . . . . .	\$220,860.16	\$220,860.16	\$7,253.18

## Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.
\$220,860.16	Cost of Road (p. 325), . . . . .	\$220,860.16
30,939.84	Profit and Loss, . . . . .	30,939.84
\$251,800.00	Grand Total, . . . . .	\$251,800.00

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.
\$251,800.00	Capital Stock (p. 325), . . . . .	\$251,800.00

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF FAIRFIELD, } ss. SOUTH NORWALK.

We, the undersigned, William J. Mead, President, and Hiram K. Scott, Treasurer, of the Ridgefield & New York Railroad Co., on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all the financial operations of said Company during the period for which said return is made.

WILLIAM J. MEAD,  
*President.*

HIRAM K. SCOTT,  
*Treasurer.*

Subscribed and sworn to before me this 8th day of September, 1893.

CHARLES E. FERRIS,  
*Notary Public.*



# THE SHEPAUG, LITCHFIELD & NORTHERN RAILROAD COMPANY.

## History.

Name of common carrier making this report? The Shepaug, Litchfield & Northern Railroad Company.

Date of organization? May, 1887.

Under laws of what Government, State, or Territory organized? State of Connecticut.

If a reorganized company, give name of original corporation, and refer to laws under which it was organized:

Chartered as Shepaug Valley Railroad Company, May, 1868; road opened January 1, 1872; reorganized as Shepaug Railroad Company in 1873; reorganized under present name as above.

## Organization.

Names of Directors.	Post-office Address.	Expiration of Term.
CHARLES P. CLARK,	New Haven, Conn.,	2d Wednesday, Nov., 1893.
J. PIERPONT MORGAN,	New York, N. Y.,	" "
WILLIAM ROCKEFELLER,	" "	" "
GEO. MACCULLOCH MILLER,	" "	" "
LUCIUS TUTTLE,	New Haven, Conn.,	" "
WM. E. BARNETT,	" "	" "
S. E. MERWIN,	" "	" "
J. DEMING PERKINS,	Litchfield, "	" "
ALEXANDER MCNEILL,	" "	" "

Total number of stockholders at date of last election? 24.

Date of last meeting of stockholders for election of directors? 2d Wednesday in November, 1892.

Post-office address of general office. Litchfield, Conn.

Post-office address of operating office. Litchfield, Conn.

## Officers.

Title.	Name.	Location of Office.
President,	CHARLES P. CLARK,	New Haven, Conn.
Vice-President,	LUCIUS TUTTLE,	" "
Secretary,	WM. E. BARNETT,	" "
Treasurer,	PHILIP P. HUBBARD,	Litchfield, "
Auditing Committee,	CHARLES P. CLARK,	New Haven, "
	LUCIUS TUTTLE,	" "
	C. H. PLATT,	" "

**Officers.—Continued.**

Title.	Name.	Location of Office.	
General Manager,	C. H. PLATT,	New Haven,	Conn.
Superintendent,	J. E. MARTIN,	Litchfield,	"
Chief Clerk,	ROBERT T. BIRD,	"	"
General Freight Agent,	J. E. MARTIN,	"	"
General Passenger Agent,	" "	"	"
General Ticket Agent,	" "	"	"

**Property Operated.**

Name of every Railroad the operations of which are included in the Income Account (p. 330):

Name.	TERMINALS.		Miles of Line for each Road Named.	Miles of Line for each Class of Roads Named.
	From—	To—		
Shepaug, Litchfield & Northern, Bethel Branch of the Danbury Division of the N.Y., N.H. & H.R.R.,	Litchfield, Ct.	Hawleyville, Ct.	32.28	32.28
	Hawleyville, Ct.	Bethel, Ct.	5.95	5.95
Total, . . . . .			38.23	38.23

**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Common, . . . . .	12,000	\$50.00	\$600,000.00	\$599,850.00
To be issued on surrender of Bonds, . . . . .				150.00
Total, . . . . .	12,000		\$600,000.00	\$600,000.00

Manner of Payment for Capital Stock.	Total Number of Shares Issued.
Issued for reorganization: Common, . . . . .	*11,997
To be issued, . . . . .	†3
Total, . . . . .	12,000

\* Exchanged for bonds of the Shepaug Valley R.R. Co.; \$150 of stock for each \$100 of bonds.

† To be exchanged for bonds of the Shepaug Valley R.R. Co.; \$150 of stock for each \$100 of bonds.

## Funded Debt.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	INTEREST.	
	Date of Issue.	When Due.		Rate.	When Payable.
1st Mortgage,	1st May, 1890	1st May, 1930	\$300,000.00	5 per cent.	1st May. 1st November.

## Current Assets and Liabilities.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1893.	
Cash, . . . . .	\$2,130.03	Audited Vouchers and Accounts, . . . . .	\$1,580.88
Due from Agents, . . . . .	7,012.19	Wages and Salaries, . . . . .	829.89
Due from Solvent Companies and Individuals, . . . . .	862.23	Net Traffic Balances due to other Companies, . . . . .	3,554.90
		Balance—Cash Assets, . . . . .	4,038.78
Total, . . . . .	\$10,004.45	Total, . . . . .	\$10,004.45

## Recapitulation.

## a. For mileage owned by road making this report:

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 328),	\$600,000.00	\$600,000.00	32.28	\$18,587.36
Current Liabilt's (p.329),	5,965.67	5,965.67	32.28	184.81
Total, . . . . .	\$605,965.67	\$605,965.67	.....	\$18,772.17

## b. For mileage operated by road making this report (trackage rights excluded), the operations of which are included in the Income Account (p. 330):

Name of Road.	Capital Stock.	Current Liabilities.	Total.	AMOUNT PER MILE OF ROAD.	
				Miles.	Amount.
Shepaug, Litchfield & Northern R.R.,	\$600,000.00	\$5,965.67	\$605,965.67	32.28	\$18,772.17

(This Company also operates the Bethel Branch of the Danbury Division of the N. Y., N. H. & H. R. R. Co. It is 5.95 miles long.)

## Cost of Road, Equipment, and Permanent Improvements.

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost per Mile.
<b>Construction:</b>			
Real Estate, . . . . .	\$1,101.75	\$1,101.75	\$34.13
Grading, Bridge, Culvert, and Re- taining Masonry, . . . . .	5,860.04	5,860.04	181.54
Rails, . . . . .	8,259.99	8,259.99	255.88
Buildings, Furniture, and Fixtures,	8,975.94	8,975.94	278.08
Shop Machinery and Tools, . . . . .	22.16	22.16	.68
Engineering Expenses, . . . . .	2,467.38	2,467.38	76.43
Sidings and Yard Extensions, . . . . .	431.52	431.52	13.37
Constructed road in reorganization,	578,000.00	578,000.00	17,905.82
<b>Total Construction,</b>	<b>\$605,118.78</b>	<b>\$605,118.78</b>	<b>\$18,745.93</b>
<b>Equipment:</b>			
Locomotives, . . . . .	16,700.00	16,700.00	517.35
Passenger Cars, . . . . .	11,510.81	11,510.81	356.59
Baggage and Caboose Cars, . . . . .	500.00	500.00	15.49
Combination Cars, . . . . .	3,000.00	3,000.00	92.94
Freight Cars, . . . . .	13,908.31	13,908.31	430.86
<b>Total Equipment,</b>	<b>\$45,619.12</b>	<b>\$45,619.12</b>	<b>\$1,413.23</b>
<b>Total Cost Construction, Equip- ment, etc., }</b>	<b>\$650,737.90</b>	<b>\$650,737.90</b>	<b>\$20,159.16</b>

## Income Account.

Gross Earnings from Operation (p. 331), . . . . .	\$69,474.16	
Less Operating Expenses (p. 333), . . . . .	66,135.29	
Income from Operation, . . . . .		\$3,338.87
Miscellaneous Income, less Expenses (p. 331), . . . . .	\$142.50	
Income from other Sources, . . . . .		\$142.50
Total Income, . . . . .		\$3,481.37
<b>Deductions from Income:</b>		
Rent of Bethel Branch not yet due, . . . . .		
Taxes, . . . . .	\$604.90	
Total Deductions from Income, . . . . .		604.90
Net Income, . . . . .		\$2,876.47
Surplus from Operations of Year ending June 30, 1893,		\$2,876.47
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . . .		52,239.25
		\$55,115.72
Deductions for Year, . . . . .		339.04
Surplus on June 30, 1893, [for entry on "General Balance Sheet," p. 333,] . . . . .		\$54,776.68



**Earnings from Operation.**

Item.	Total Receipts.	Deductions, Account of Re- payments, etc.	Actual Earnings.
Passenger:			
Passenger Revenue, . . . . .	\$24,597.34		
Less Repayments:			
Other Repayments, . . . . .		\$196.98	
Total Passenger Revenue, . . . . .			\$24,400.36
Mail, . . . . .			1,910.48
Express, . . . . .			2,000.00
Total Passenger Earnings, . . . . .			\$28,310.84
Freight:			
Freight Revenue, . . . . .	42,193.91		
Less Repayments:			
Overcharge to Shippers, . . . . .		\$344.87	
Other Repayments, . . . . .		851.75	
Total Deductions, . . . . .		\$1,196.62	
Total Freight Revenue, . . . . .			\$40,997.29
Total Freight Earnings, . . . . .			\$40,997.29
Total Passenger and Freight Earnings, . . . . .			\$69,308.13
Other Earnings from Operation:			
Telegraph Companies and Telephone, . . . . .			\$166.03
Total other Earnings, . . . . .			\$166.03
Total Gross Earnings from Operation, . . . . .			\$69,474.16

**Miscellaneous Income.**

Item.	Gross Income.	Net Miscellaneous Income.
Rent of Coal and Lumber Yards, . . . . .	\$142.50	\$142.50

## Operating Expenses.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures:			
Repairs of Roadway, . . . . .	\$9,258.65	\$5,298.98	\$14,557.63
Renewals of Rails, . . . . .	3,874.66	2,217.58	6,092.24
Renewals of Ties, . . . . .	1,411.65	807.92	2,219.57
Repairs of Bridges and Culverts, . .	3,326.94	1,904.09	5,231.03
Repairs of Fences, Road-crossings, Signs, and Cattle Guards, . . . .	679.73	389.02	1,068.75
Repairs of Buildings and Fixtures, .	535.91	306.72	842.63
Total, . . . . .	\$19,087.54	\$10,924.31	\$30,011.85
Maintenance of Equipment:			
Repairs and renewals of Locomotives,	3,837.76	2,196.45	6,034.21
Repairs and renewals of Passenger Cars,	627.74	359.27	987.01
Repairs and renewals of Freight Cars,	634.62	363.21	997.83
Shop Machinery, Tools, etc., . . .	31.87	18.24	50.11
Total, . . . . .	\$5,131.99	\$2,937.17	\$8,069.16
Conducting Transportation:			
Wages of Enginemen, Firemen, and Roundhousemen, . . . . .	2,246.09	2,349.05	4,595.14
Fuel for Locomotives, . . . . .	3,666.48	2,098.43	5,764.91
All other supplies for Locomotives, .	315.98	180.84	496.82
Wages of other Trainmen, . . . . .	1,765.74	3,030.62	4,796.36
All other train supplies, . . . . .	125.79	71.99	197.78
Expense of Telegraph, including Train Dispatchers and Operators, . . . .	310.09	177.47	487.56
Wages of Station Agents, Clerks, and Laborers, . . . . .	2,466.57	1,411.69	3,878.26
Station supplies, . . . . .	258.32	147.85	406.17
Car Mileage — Balance, . . . . .	29.47	16.86	46.33
Loss and Damage, . . . . .	119.39	68.33	187.72
Total, . . . . .	\$11,303.92	\$9,553.13	\$20,857.05
General Expenses:			
Salaries of Officers, . . . . .	2,881.68	1,649.27	\$4,530.95
Salaries of Clerks, . . . . .	457.92	262.08	720.00
General Office Expenses and Supplies,	83.52	47.80	131.32
Advertising, . . . . .	34.03	19.47	53.50
Insurance, . . . . .	190.80	109.20	300.00
Legal Expenses, . . . . .	93.33	53.42	146.75
Stationery and Printing, . . . . .	598.24	342.39	940.63
Other General Expenses, . . . . .	237.91	136.17	374.08
Total, . . . . .	\$4,577.43	\$2,619.80	\$7,197.23

## Operating Expenses.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Recapitulation of Expenses:			
Maintenance of Way and Structures,	\$19,087.54	\$10,924.31	\$30,011.85
Maintenance of Equipment, . . .	5,131.99	2,937.17	8,069.16
Conducting Transportation, . . .	11,303.92	9,553.13	20,857.05
General Expenses, . . . . .	4,577.43	2,619.80	7,197.23
Grand Total, . . . . .	\$40,100.88	\$26,034.41	\$66,135.29
Percentage of Expenses to Earnings, .	141.64	63.50	95.19

## Comparative General Balance Sheet.

Item, June 30, 1892.	Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Decrease, Year ending June 30, 1893.
\$9,314.79	\$605,118.78	Cost of Road (p. 330),	\$605,118.78	.....
4.00	45,619.12	Cost of Equipm't (p. 330),	45,619.12	.....
.....	10,342.78	Cash and Current As- sets (p. 329), . . .	10,004.45	\$338.33
\$9,318.79	\$661,080.68	Grand Total, . . .	\$660,742.35	\$338.33

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase, Year ending June 30, 1893.	Decrease, Year ending June 30, 1893.
\$600,000.00	Capital Stock (p. 328),	\$600,000.00	.....	.....
8,841.43	Cur. Liabilities (p. 329),	5,965.67	.....	\$2,875.76
52,239.25	Profit and Loss, . . .	54,776.68	\$2,537.43	.....
\$661,080.68	Grand Total, . . .	\$660,742.35	\$2,537.43	\$2,875.76

## Contracts, Agreements, Etc.

Adams Express Co.—They have control of the entire express business of this line, at a flat rental of \$2,000.00 per year.

United States Post-office Department.—No Contract; revenue based on weight of mails.

**Contracts, Agreements, Etc.—Continued.**

The Western Union Telegraph Co.—Own and operate this wire. Said Telegraph Company transacts all our business to a certain maximum amount, this Company paying 50 per cent. of excess.

This Company receives and delivers to the following companies, freight and passengers, on through rates and divisions:

New York, New Haven & Hartford Railroad System.

New York & New England Railroad.

This Company operates since December 11, 1892, a certain piece of track, known as the Bethel Branch, between Hawleyville and Bethel, a distance of 5.95 miles, under contract for the revenue.

**Employees and Salaries.**

Class.	No.	Total No. of Days Worked.	Total Yearly Com- pensation.	Average Daily Com- pensation.
General Officers (4 under salary), . . . . .	8	1,252	\$4,530.95	\$3.62
General Office Clerks, . . . . .	1	365	720.00	1.98
Station Agents, . . . . .	8	2,920	3,255.00	1.12
Other Station Men, . . . . .	3	1,095	445.03	.40
Enginemen, . . . . .	3	1,043	2,846.73	2.73
Firemen, . . . . .	2	678	1,140.00	1.68
Conductors, . . . . .	2	678	1,805.00	2.66
Other Trainmen, . . . . .	6	1,693	2,910.25	1.72
Machinist, . . . . .	1	313	1,200.00	3.83
Carpenter, . . . . .	1	313	704.25	2.25
Other Shopmen, . . . . .	1	313	540.00	1.72
Section Foremen, . . . . .	6	1,730	3,325.00	1.92
Other Trackmen, . . . . .	27	6,660	9,998.29	1.50
Watchmen, . . . . .	2	730	1,080.00	1.48
Telegraph Operator, . . . . .	1	313	219.96	.70
All other Employes and Laborers, . . . . .	10	71	132.76	1.87
<b>Total (including "General Officers"),</b>	<b>82</b>	<b>20,167</b>	<b>\$34,853.22</b>	<b>\$1.72</b>
<b>Less "General Officers," . . . . .</b>	<b>8</b>	<b>1,252</b>	<b>4,530.95</b>	<b>3.62</b>
<b>Total (excluding "General Officers"),</b>	<b>74</b>	<b>18,915</b>	<b>\$30,322.27</b>	<b>\$1.60</b>
<b>Distribution of above:</b>				
General Administration, . . . . .	8	1,252	4,530.95	3.62
Maintenance of Way and Structures, . . . . .	46	9,504	14,756.01	1.55
Maintenance of Equipment, . . . . .	3	939	2,444.25	2.60
Conducting Transportation, . . . . .	25	8,472	13,122.01	1.55
<b>Total (including "General Officers"),</b>	<b>82</b>	<b>20,167</b>	<b>\$34,853.22</b>	<b>\$1.72</b>
<b>Less "General Officers," . . . . .</b>	<b>8</b>	<b>1,252</b>	<b>4,530.95</b>	<b>3.62</b>
<b>Total (excluding "General Officers"),</b>	<b>74</b>	<b>18,915</b>	<b>\$30,322.27</b>	<b>\$1.60</b>



### Passenger, Freight, and Train Mileage.

Item.	Tonnage, No. Passengers, No. Trains, Mileage, No. Cars.	REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
No. of Passengers carried earning revenue,	32,440			
No. of passengers carried one mile,	682,490			
Average distance carried,	21.04			
Total passenger revenue (p. 331),		24,400	36	
Ave. amount received from each passenger,			75	217
Ave. receipts per passenger per mile,			03	575
Estimated cost carrying each passenger 1 mile,			05	875
Total passenger earnings (p. 331),		28,310	84	
Passenger earnings per mile of road (35.26 m.),		802	91	660
Passenger earnings per train mile (41,955 m.),			67	478
Freight Traffic:				
No. tons carried of freight earning revenue,	38,546			
No. tons carried one mile,	789,684			
Average distance haul of one ton,	20.48			
Total freight revenue (p. 331),		40,997	29	
Ave. amount received for each ton of freight,			1	06
Ave. receipts per ton per mile,			05	191
Estimated cost of carrying one ton one mile,			03	297
Total freight earnings (p. 331),		40,997	29	
Freight earnings per mile of road (35.26 m.),		1,162	71	384
Freight earnings per train mile (24,048 m.),			1	70
Passenger and Freight:				
Passenger and freight revenue (p. 331),		65,397	65	
Pass. and freight revenue per mile of road,		1,854	72	631
Pass. and freight earnings (p. 331),		69,308	13	
Pass. and freight earnings per mile of road,		1,965	63	046
Gross earnings from operation (p. 331),		69,474	16	
Gross earnings from operation per mile of road,		1,970	33	919
Gross earnings from operation per train mile,			1	05
Expenses (p. 333),		66,135	29	
Expenses per mile of road,		1,875	64	634
Income from operation (p. 330),		3,338	87	
Income from operation per mile of road,			94	69
Train Mileage:				
Miles run by passenger trains,	33,939			
Miles run by freight trains,				
Miles run by mixed trains,	32,064			
Total Mileage Trains Earning Revenue,	66,003			
Miles run by switching trains,				
Miles run by construction and other trains,	5,240			
Grand Total Train Mileage,	71,243			
Mileage of loaded freight cars—North,	71,831			
Mileage of loaded freight cars—South,	52,016			
Mileage of empty freight cars—North,	21,231			
Mileage of empty freight cars—South,	31,846			
Average No. of freight cars in train,	10.80			
Average No. of loaded cars in train,	7.56			
Average No. of empty cars in train,	3.24			
Average No. of tons of freight in train,	51.12			
Ave. No. of tons of freight in each loaded car,	6.76			

Ten miles per day allowed for freight train switching, and four miles for passenger.

This Company added to its mileage, Dec. 11, 1892, 5.95 miles in operation of the Bethel Branch. We have, therefore, used the average mileage for year as 35.26 miles in arriving at data furnished.

## Freight Traffic Movement.

Commodity.	Freight originating on this Road.	Freight received from connecting roads and other carriers.	TOTAL FREIGHT TONNAGE.	
	Whole Tons.	Whole Tons.	Whole Tons.	Per cent.
Products of Agriculture:				
Grain, . . . . .	48	3,871	3,919	10.26
Flour, . . . . .	.....	560	560	1.44
Fruit and Vegetables, . . . . .	89	360	449	1.16
Products of Animals:				
Live Stock, . . . . .	40	269	309	.80
Dressed Meats, . . . . .	72	405	477	1.24
Milk, . . . . .	8,701	.....	8,701	22.47
Products of Mines:				
Anthracite Coal, . . . . .	.....	5,258	5,258	13.63
Stone, . . . . .	6,667	31	6,698	17.37
Products of Forest:				
Lumber, . . . . .	755	1,998	2,753	7.14
Manufactures:				
Petroleum and other Oils, . . . . .	.....	3,495	3,495	9.06
General Manufactures, . . . . .	117	1,347	1,464	3.88
Cement, Brick, Lime, and Sand, . . . . .	720	1,696	2,416	6.26
Wines, Liquors, and Beers, . . . . .	.....	135	135	.35
Merchandise, . . . . .	51	987	1,038	2.69
Miscellaneous:				
Other commodities not mentioned above, . . . . .	175	699	874	2.25
Total Tonnage, . . . . .	17,435	21,111	38,546	100.00
Total Tonnage, entire line, . . . . .	17,435	21,111	38,546	100.00

## Description of Equipment.

Item.	Total Number at end of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives:					
Passenger, . . . . .	2	3	Eames Vac.	.....	.....
Freight, . . . . .	2	1	Westinghouse.	.....	.....
Total Locomotives, . . . . .	4	4	.....	.....	.....
Cars in Passenger Service:					
First-class Passenger Cars, . . . . .	3	}	2 Westinghouse Aut.	}	2 Miller Hook.
			1 Westinghouse and Eames Vac.		1 "
Combination Passenger Cars, . . . . .	2	}	1 West. Aut. and Eames Vac. pipe.	}	1 "
			1 Eames Vac. and West. Aut. brake.		1 "
Bag., Exp., and Postal Cars, . . . . .	1	}	Leader pipe for West. and Eames.	}	1 "
Total, . . . . .	6	6	.....	.....	.....
Cars in Freight Service:					
Flat Cars, . . . . .	38	....	None.	....	None.
Refrigerator Cars, . . . . .	4	....	Leader pipes.	....	Miller Hook.
Total, . . . . .	42	....	.....	.....	.....
Cars in Company's Service:					
Caboose Cars, . . . . .	1	....	None.	....	None.
Total, . . . . .	1	....	.....	.....	.....
Total Cars Owned, . . . . .	49	....	.....	.....	.....
Grand Total Cars, . . . . .	49	....	.....	.....	.....

**Mileage.***a.* Mileage of road operated:

Line in Use.	Main Line represented by Capital Stock.	Line Operated under Lease, etc.	Total Mileage Operated.	RAILS.	
				Iron.	Steel.
Miles single track, . . . .	32.28	5.95	38.23	4.52	33.71
Miles yard track and sidings,	3.17	.93	4.10	3.89	.21
Total Mileage Operated (all } tracks),	35.45	6.88	42.33	8.41	33.92

*b.* Mileage of Line by States and Territories.

## 1. Mileage operated by road making this report:

State or Territory.	Main Line represented by Capital Stock.	Line Operated under Lease, etc.	Total Mileage excluding Trackage Rights.	RAILS.	
				Iron.	Steel.
Connecticut, . . . . .	32.28	5.95	38.23	4.52	33.71

## 2. Mileage owned by road making this report:

State or Territory.	Main Line represented by Capital Stock.	Total Mileage excluding Trackage Rights.	RAILS.	
			Iron.	Steel.
Connecticut, . . . . .	32.28	32.28	4.52	27.74 <sup>a</sup>

**Renewals of Rails and Ties.**

## NEW RAILS LAID DURING YEAR.

Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.
Steel, . . . . .	204.02	60½ lbs.	\$30.00



**Renewal of Ties and Rails.—Continued.****NEW TIES LAID DURING YEAR.**

Kind.	Number.	Average Price at Distributing Point.
Chestnut and oak, . . . . .	6,327	.359

**Consumption of Fuel by Locomotives.**

Locomotives.	Bituminous Coal.—Tons.	Hard Wood. Cords.	Total Fuel Consumed. Tons.	Miles Run.	Average pounds consumed per Mile.
Passenger, . . . . .	725.47	5.20	728.93	33,939	42.95
Freight and Mixed, . . . . .	935.31	6.70	939.77	32,064	58.62
Construction, . . . . .	153.89	1.10	153.63	5,240	58.63
Total, . . . . .	1,813.67	13.00	1,822.33	71,243	51.15
Av. Cost at Distb. Point,	\$3.16	\$2.75	\$3.16	.....	.....

**Accidents to Persons.**

Kind of Accident.	Trainmen Injured.	Total Injured.
Other Causes, . . . . .	1	1

**DESCRIPTION OF ACCIDENT.**

P. Donovan, brakeman, jumped from roof of car at Hawleyville, February 3, 1898, and was slightly injured.

## Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
			Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
From—	To—	Miles.			
Litchfield	Hawleyville.	32.28	138	14.56	17.72
Hawleyville	Bethel.	5.95	No	available	record.
Total,	.	38.23	...	.....	.....

## PROFILE.

No available record.

## BRIDGES, TRESTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, . . .	2	27	..	13	6	13	6
Iron, . . .	7	885	..	29	6	450	3
Stringer, . .	20	373	2	11	6	42	6
Combination,	1	46	10	46	10	46	10
Total, . . .	30	1,332	..	..	..	..	..
Trestles, . .	8	513	..	21	..	108	..
Tunnels, . .	1	120	..	..	..	..	..

## OVERHEAD HIGHWAY CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Bridges, . . . . .	1	17	8

GAUGE OF TRACK—4 feet, 8½ inches; 38.23 miles.

**Telegraph.**

Owned by another company, but located on property of road making this report.

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
38.23	38.23	Western Union Tel. Co.	Western Union Tel. Co.

**Car Mileage.**

Individual, Co-operative Fast Freight Lines, and Stock Companies, to which the company making this report pays mileage for the use of cars:

1	Eureka Transportation Co.	13	Canada Southern Line.
2	Union Line.	14	C. B. Havens & Co.
3	Southern Despatch Co.	15	Blue Line.
4	Hoosic Tunnel Line.	16	White Line.
5	Michigan and Milwaukee Line.	17	Midland Line.
6	Eastman Freight Car Heater Co.	18	Vandalia Line.
7	Atlantic Coast Line.	19	National Despatch Line.
8	Great Northern Railway Line.	20	Erie Despatch Line.
9	Union Tank Line.	21	Commercial Express Co. Line.
10	Street's Western Stable Line.	22	Continental Line.
11	Red Line.	23	Empire Line.
12	Merchants Despt. and Trans. Co.	24	The Burton Stock Car Line.

**Oath.**

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, Charles P. Clark, President, and Philip P. Hubbard, Treasurer, of the Shepaug, Litchfield & Northern Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

CHARLES P. CLARK,  
*President.*

PHILIP P. HUBBARD,  
*Treasurer.*

Subscribed and sworn to before me this 12th day of September, 1893.

A. S. MAY,  
*Notary Public.*

# SHORE LINE RAILWAY.

(LESSOR.)

## History.

Name of the common carrier making this report? Shore Line Railway.

Date of organization? March 15, 1865.

Under laws of what Government, State, or Territory organized? Chartered by the State of Connecticut, May session, 1864.

If a reorganized company, give name of original corporation, and refer to laws under which it was organized. New Haven & New London Railroad. Laws of State of Connecticut.

What carrier operates the road of this company? New York, New Haven & Hartford Railroad Company.

## Organization.

Names of Directors.	Post-Office Address.	Expiration of Term.
EZEKIEL H. TROWBRIDGE,	New Haven, Conn.	June, 1894.
HENRY L. HOTCHKISS,	" "	" "
WILBUR F. DAY,	" "	" "
WILLIAM T. BARTLETT,	" "	" "
ARTHUR D. OSBORNE,	" "	" "
E. HAYES TROWBRIDGE, JR.,	" "	" "

Total number of stockholders at date of last election? 93.

Date of last meeting of stockholders for election of directors? June 7, 1893.

Post-office address of lessors' office. Wm. L. Squire, Treas., New Haven, Conn.

Post-office address of operating office. New York, New Haven & Hartford Railroad Company, New Haven, Conn.

## Officers.

Title.	Name.	Location of Office.
President,	EZEKIEL H. TROWBRIDGE,	New Haven, Conn.
Vice-President,	E. HAYES TROWBRIDGE, JR.,	" "
Secretary,	WM. E. BARNETT,	" "
Treasurer,	WM. L. SQUIRE,	" "



Property Leased, or Otherwise Assigned for Operation.

Name of railroad, the income of which from lease, or from other assignment for operation, is included in the income account — (p. 345).

Name.	TERMINALS.		By what Company Operated.	Under what kind of Contract Operated.	Miles of Line.
	From—	To—			
The Shore Line Railway.	New Haven	New London.	Leased to and operated by the N. Y., N. H. & H. R. R. Company.	Perpetual Lease.	48.53

Contract Existing between this Road and the Company by which it is Operated.

The Shore Line Railway is leased in perpetuity to the New York, New Haven & Hartford Railroad Company, at an annual rental of \$100,000, payable to said Shore Line Railway one-half on the first Tuesday of January and one-half on the first Tuesday of July in each year.

Capital Stock.

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	10,000	\$100.00	\$1,000,000.00	\$1,000,000.00	8 p. c.	\$80,000.00

Manner of Payment for Capital Stock.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash, Common, . . . . .	628 <sup>452</sup> / <sub>1000</sub>	\$62,845.20
Issued for First Mortgage Bonds of New Haven & New London R. R. Co., . . . . .	6,781 <sup>250</sup> / <sub>1000</sub>	.....
Issued for increased valuation of road, . . . . .	2,590 <sup>298</sup> / <sub>1000</sub>	.....
Total, . . . . .	10,000	\$62,845.20

**Funded Debt.**

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash realized on amount Issued.
	Date of Issue.	When Due.				
1st Mortgage,	1880	1910	\$200,000	\$200,000	\$200,000	\$201,000

**INTEREST.**

Rate.	When Payable.	Amount Accrued during Year.	Amount Paid during Year.
4½ per cent.	March and September.	\$9,000.00	\$9,000.00

**Recapitulation of Funded Debt.**

Class of Debt.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued during Year.	Amount Paid during Year.
Mort. Bonds (p.344),	\$200,000.00	\$200,000.00	\$9,000.00	\$9,000.00

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Cash, . . . . \$1,453.72	Loans and Bills Payable, . \$3,800.00
Balance Current Liabilities, 2,346.28	
Total, . . . . \$3,800.00	Total, . . . . \$3,800.00

**Recapitulation.**

For mileage owned by road making this report :

Account.	Total Amount Outstanding.	AMOUNT PER MILE OF ROAD.	
		Miles.	Amount.
Capital Stock (p. 343), . . . .	\$1,000,000.00	48.53	\$20,605.81
Bonds (p. 344), . . . .	200,000.00	48.53	4,121.16
Total, . . . . .	\$1,200,000.00	.....	\$24,726.97

**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost Per Mile.
Total Construction, . . . . .	\$1,169,496.10	\$1,169,496.10	\$24,128.38

**Income Account.**

Income from lease of road, . . . . .	\$100,000.00
Total Income, . . . . .	\$100,000.00
Deductions from Income:	
Salaries and Maintenance of Organization, . . . . .	\$916.55
Interest on Funded Debt accrued (p. 343), . . . . .	9,000.00
Interest on Interest-bearing Current Liabilities accrued, not otherwise provided for, . . . . .	73.75
Taxes, . . . . .	17,000.00
Total Deduction from Income, . . . . .	26,990.30
Net Income, . . . . .	\$73,009.70
Dividends, 8 per cent., common stock, . . . . .	\$80,000.00
Total, . . . . .	80,000.00
Deficit from Operations of Year ending June 30, 1893,	\$6,990.30
Deficit on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . . .	\$25,859.88
Deficit on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .	\$32,850.18

## Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$1,169,496.10	Cost of Road (p. 345), .	\$1,169,496.10	.....	.....
4,644.02	Cash and Current Assets,	1,453.72	.....	\$3,190.30
25,859.88	Profit and loss, . . .	32,850.18	\$6,990.30	.....
\$1,200,000.00	Grand Total, . . .	\$1,203,800.00	\$6,990.30	\$3,190.30

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$1,000,000.00	Capital Stock (p. 343), .	\$1,000,000.00	.....	.....
200,000.00	Funded Debt (p. 344), .	200,000.00	.....	.....
	Current Liabilities, . . .	3,800.00	\$3,800.00	.....
\$1,200,000.00	Grand Total, . . .	\$1,203,800.00	\$3,800.00	.....

## Security for Funded Debt.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.		Miles.	Amount of Mortgage per Mile of Line.
	From—	To—		
1st Mortgage, . . .	New Haven	New London.	48.53	\$4,121.16

## Mileage.

Mileage owned by road making this report:

State or Territory.	Line Represented by Capital Stock. Main Line.	Total Mileage, Excluding Track- age Rights.	Steel Rails.
New Haven to New London,	48.53	48.53	48.53



## Characteristics of Road.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		
From —	To —	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
New Haven	New London.	48.53	65	19	29.53

## PROFILE.

Length of Level Line. Miles.	ASCENDING GRADES.			DESCENDING GRADES.		
	No.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	No.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
8.83	41	518	18.96	38	532	20.74

## BRIDGES, TRETTLES, TUNNELS, ETC.

Item.	Number.	AGGREGATE LENGTH.		MINIMUM LENGTH.		MAXIMUM LENGTH.	
		Feet.	Inches.	Feet.	Inches.	Feet.	Inches.
Bridges:							
Stone, . .	5	115	....	10	....	45	....
Iron, . .	36	3,141	....	15	....	1,124	....
Wooden, .	9	1,501	....	10	....	1,314	....
Total, .	50	4,757	....	....	....	....	....
Trestles, .	12	3,215	....	85	....	779	....

## OVERHEAD CROSSINGS.

Item.	Number.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings : Bridges, . . . . .	24	14	6

GAUGE OF TRACK — 4 feet, 8½ inches; 48.53 miles.

## Oath.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

We, the undersigned, E. H. Trowbridge, President, and W. L. Squire, Treasurer, of the Shore Line Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

E. H. TROWBRIDGE,

*President.*

W. L. SQUIRE,

*Treasurer.*

Subscribed and sworn to before me this 15th day of September, 1893.

A. S. MAY,

*Notary Public.*

# SOUTH MANCHESTER RAILROAD CO.

## History.

Name of common carrier making this report? South Manchester Railroad Company.

Date of organization? May Session, 1866.

Under laws of what Government, State, or Territory organized? State of Connecticut.

## Organization.

Name of Directors.	Post-office Address.	Expiration of Term.
RALPH CHENEY,	South Manchester, Conn.,	Until successor is appointed.
FRANK CHENEY,	" "	" " "
F. W. CHENEY,	" "	" " "
RICHARD O. CHENEY,	" "	" " "

Total number of stockholders at date of last election? 9.

Date of last meeting of stockholders for election of directors? January 25, 1869.

Give post-office address of general office. South Manchester, Conn.

Give post-office address of operating office. South Manchester, Conn.

## Officers.

Title.	Name.	Location of Office.
President,	F. W. CHENEY,	South Manchester, Conn.
Secretary,	RICHARD O. CHENEY,	" "
Treasurer,	CHARLES S. CHENEY,	" "
Attorney,	OLIN R. WOOD,	Manchester, Conn.
General Manager,	RICHARD O. CHENEY,	South Manchester, Conn.
General Freight Agent,	CHARLES S. CHENEY,	" "

## Property Operated.

Name of every Railroad the operations of which are included in the Income Account:

Name.	TERMINALS.		Miles of Line for each Road Named.
	From—	To—	
South Manchester Railroad,	So. Manchester,	Manchester.	2.25

•  
**Capital Stock.**

Description.	Number of Shares Authorized.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
					Rate.	Amount.
Common,	400	\$100.00	\$40,000.00	\$40,000.00	.....	None.

Manner of Payment for Capital Stock.	Total Number of Shares Issued.	Total Cash Realized.
Issued for Cash : Common, . . . . .	400	\$40,000.00

**Current Assets and Liabilities.**

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1893.
Balance—Current Liabilities, \$13,415.55	Loans and Bills Payable, \$13,415.55

Materials and Supplies on hand, \$3,809.40.

**Recapitulation.**

*a.* For mileage owned by road making this report :

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock (p. 350),	\$40,000.00	\$40,000.00	2.25	\$17,777.77

*b.* For mileage operated by road making this report (trackage rights excluded), the operations of which are included in the Income Account (p. 351) :

Name of Road.	Capital Stock.	Current Liabilities.	Total.	AMOUNT PER MILE OF ROAD.	
				Miles.	Amount.
South Manchester R. R.,	\$40,000.00	\$13,415.55	\$53,415.55	2.25	\$23,740.24



**Cost of Road, Equipment, and Permanent Improvements.**

Item.	Expenditures during year not included in Operating Expenses, charged to Construction or Equipment.	Total Cost to June 30, 1892.	Total Cost to June 30, 1893.	Cost Per Mile.
Construction: Grading, and Bridge and Culvert Masonry, . .	33.25	.....	.....	.....
Total Construction, . .	33.25	\$80,804.75	\$80,838.00	\$35,928.00
Cost Equipment, . .	.....	25,817.92	25,817.92	11,474.63
Total Cost Construction, } Equipment, etc.,	33.25	\$106,622.67	\$106,655.92	\$47,402.63

**Income Account.**

Gross Earnings from Operation (p. 351), . . . .	\$19,932.05
Less Operating Expenses (p. 352), . . . .	17,892.30
Income from Operation, . . . .	\$2,039.75
Deductions from Income:	
Taxes, . . . . .	313.55
Total Deductions from Income, . . . .	313.55
Net Income, . . . . .	\$1,726.20
Surplus from Operations of Year ending June 30, 1893,	\$1,726.20
Surplus on June 30, 1892, [from "General Balance Sheet," 1892 Report,] . . . .	55,323.57
Surplus on June 30, 1893, [for entry on "General Balance Sheet,"] . . . . .	\$57,049.77

**Earnings from Operation.**

Total Passenger Revenue, . . . . .	\$11,517.92
Express, . . . . .	75.00
Extra Baggage and Storage, . . . . .	53.90
Total Passenger Earnings, . . . . .	\$11,646.82
Total Freight Revenue, . . . . .	8,285.23
Total Passenger and Freight Earnings, . . . . .	\$19,932.05
Total Gross Earnings from Operations, . . . . .	\$19,932.05

## Operating Expenses.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
<b>Maintenance of Way and Structures:</b>			
Repairs of Roadway, . . . . .	\$2,256.59	\$1,128.30	\$3,384.89
Renewals of Rails, . . . . .	286.00	143.00	429.00
Renewals of Ties, . . . . .	105.33	52.67	158.00
Repairs of Bridges and Culverts, . .	39.02	19.51	58.53
Repairs of Road-crossings, Signs, and Cattle-guards, . . . . .	3.95	1.98	5.93
Repairs of Buildings, . . . . .	212.29	106.14	318.43
<b>Total, . . . . .</b>	<b>\$2,903.18</b>	<b>\$1,451.60</b>	<b>\$4,354.78</b>
<b>Maintenance of Equipment:</b>			
Repairs and Renewals of Locomotives, .	293.25	146.62	439.87
Repairs and Renewals of Pass'r Cars, .	1,989.95	994.97	2,984.92
Shop Machinery, Tools, etc., . . . .	7.63	3.82	11.45
Other expenses—Fuel for Roundhouse, .	108.00	54.00	162.00
<b>Total, . . . . .</b>	<b>\$2,398.83</b>	<b>\$1,199.41</b>	<b>\$3,598.24</b>
<b>Conducting Transportation:</b>			
Wages of Enginemen, Firemen, and Roundhousemen, . . . . .	2,043.33	1,021.67	3,065.00
Fuel for Locomotives, . . . . .	931.29	465.65	1,396.94
All other Supplies for Locomotives, . .	281.16	140.58	421.74
Wages of other Trainmen, . . . . .	820.00	410.00	1,230.00
Wages of Station Agents, Clerks, and Laborers, . . . . .	806.67	403.33	1,210.00
Station Supplies, . . . . .	49.67	24.83	74.50
<b>Total, . . . . .</b>	<b>\$4,932.12</b>	<b>\$2,466.06</b>	<b>\$7,398.18</b>
<b>General Expenses:</b>			
Salaries of Clerks, . . . . .	1,044.76	522.38	1,567.14
Insurance, . . . . .	85.08	42.54	127.62
Stationery and Printing, . . . . .	166.60	83.30	249.90
Other General Expenses, . . . . .	397.63	198.81	596.44
<b>Total, . . . . .</b>	<b>\$1,694.07</b>	<b>\$847.03</b>	<b>\$2,541.10</b>
<b>Recapitulation of Expenses:</b>			
Maintenance of Way and Structures, .	\$2,903.18	1,451.60	4,354.78
Maintenance of Equipment, . . . . .	2,398.83	1,199.41	3,598.24
Conducting Transportation, . . . . .	4,932.12	2,466.06	7,398.18
General Expenses, . . . . .	1,694.07	847.03	2,541.10
<b>Grand Total, . . . . .</b>	<b>\$11,928.20</b>	<b>\$5,964.10</b>	<b>\$17,892.30</b>
<b>Percentage of Expenses to Earnings, Entire Line, . . . . .</b>	<b>102.42</b>	<b>71.98</b>	<b>89.17</b>

## Comparative General Balance Sheet.

Total, June 30, 1892.	Assets.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$80,804.75	Cost of Road (p. 351), . .	\$80,838.00	\$33.25	.....
25,817.92	Cost of Equipment (p. 351), .	25,817.92	.....	.....
4,056.42	Materials and Supplies, . .	3,809.40	.....	\$247.02
\$110,679.09	Grand Total, . . .	\$110,465.32	\$33.25	\$247.02

Total, June 30, 1892.	Liabilities.	Total, June 30, 1893.	Increase Year ending June 30, 1893.	Decrease Year ending June 30, 1893.
\$40,000.00	Capital Stock (p. 350), . .	\$40,000.00	.....	.....
15,355.52	Current Liabilities, . .	13,415.55	.....	\$1,939.97
55,323.57	Profit and Loss, . . .	57,049.77	\$1,726.20	.....
\$110,679.09	Grand Total, . . .	\$110,465.32	\$1,726.20	\$1,939.97

## Employees and Salaries.

Class.	No.	Total Number of Days Worked.	Total Yearly Compensation.	Average Daily Com- pensation.
Station Agent and Conductor, . .	1	314	\$1,250.00	3.98
Other Station Men, Asst. Freight Agent, and Assistant, . . .	2	628	1,256.00	2.00
Enginemen, . . . . .	2	628	1,805.50	2.87
Firemen, . . . . .	2	628	1,099.00	1.75
Other Trainmen, . . . . .	2	628	1,114.14	1.77
Section Foreman, . . . . .	1	314	900.00	2.86
Other Trackmen, . . . . .	3	900	1,362.70	1.51
Switchmen, Flagmen, and Watch- men, . . . . .	1	365	547.50	1.50
Total, . . . . .	14	4,405	\$9,334.84	2.11
Distribution of Above :				
Maintenance of Way and Struc- tures, . . . . .	4	1,214	2,262.70	1.86
Conducting Transportation, . .	10	3,191	7,072.14	2.21
Total, . . . . .	14	4,405	\$9,334.84	2.11

## Important Changes during the Year.

Decrease of Floating Debt, \$1,939.97.

## Passenger, Freight, and Train Mileage.

Item.	Tonnage, No. Passengers, No. Trains, Mileage, No. Cars.	REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
No. of passengers carried earning revenue, . .	169,420	.....	.....	.....
No. of passengers carried one mile, . . . .	381,195	.....	.....	.....
Average distance carried, . . . . .	2.25 miles	.....	.....	.....
Total passenger revenue (p. 351), . . . . .		11,517	92	.....
Average am't received from each passenger, . . . . .		.....	06	798
Average receipts per passenger per mile, . . . . .		.....	03	021
Estimated cost carrying each passenger 1 mile, . . . . .		.....	03	129
Total passenger earnings (p. 351), . . . . .		11,646	82	.....
Passenger earnings per mile of road, . . . . .		5,176	36	4
Passenger earnings per train mile, . . . . .		.....	66	782
Freight Traffic :				
No. of tons carried of freight earning revenue, . . . . .	28,825	.....	.....	.....
No. of tons carried one mile, . . . . .	64,856	.....	.....	.....
Average distance haul of one ton, . . . . .	2.25 miles	.....	.....	.....
Total freight revenue (p. 351), . . . . .		8,285	23	.....
Average am't received for each ton of freight, . . . . .		.....	28	743
Average receipts per ton per mile, . . . . .		.....	12	775
Estimated cost of carrying one ton one mile, . . . . .		.....	09	195
Total freight earnings (p. 351), . . . . .		8,285	23	.....
Freight earnings per mile of road, . . . . .		3,682	32	4
Freight earnings per train mile, . . . . .		4	02	195
Passenger and Freight :				
Passenger and freight revenue (p. 351), . . . . .		19,803	15	.....
Passenger and freight revenue per mile of road, . . . . .		8,801	40	.....
Passenger and freight earnings (p. 351), . . . . .		19,932	05	.....
Pass. and freight earnings per mile of road, . . . . .		8,858	68	888
Gross earnings from operation (p. 351), . . . . .		19,932	05	.....
Gross earnings from operation per mile of road, . . . . .		8,858	68	888
Gross earnings from operation per train mile, . . . . .		9,675	75	2
Expenses (p. 352), . . . . .		17,892	30	.....
Expenses per mile of road, . . . . .		2,650	71	.....
Income from operation (p. 351), . . . . .		1,726	20	.....
Income from operation per mile of road, . . . . .		767	20	.....
Train Mileage :				
Miles run by passenger trains, . . . . .	17,440	.....	.....	.....
Miles run by freight trains, . . . . .	2,060	.....	.....	.....
Total Mileage Trains Earning Revenue, . . . . .	19,500	.....	.....	.....
Grand Total Train Mileage, . . . . .	19,500	.....	.....	.....
Mileage of loaded freight cars—North or East, . . . . .	1,012	.....	.....	.....
Mileage of loaded freight cars—South or West, . . . . .	3,306	.....	.....	.....
Mileage of empty freight cars—North or East, . . . . .	2,309	.....	.....	.....
Average number of freight cars in train, . . . . .	7.96	.....	.....	.....
Average number of loaded cars in train, . . . . .	5.19	.....	.....	.....
Average number of empty cars in train, . . . . .	2.77	.....	.....	.....
Average number of tons of freight in train, . . . . .	34.64	.....	.....	.....
Ave. No. of tons of freight in each loaded car, . . . . .	6.67	.....	.....	.....



**Freight Traffic Movement.**  
(Cannot give details of freight.)

Commodity.	Freight Originating on this Road.	Freight Received from Connecting Roads and other Carriers.	TOTAL FREIGHT TONNAGE.
	Whole Tons.	Whole Tons.	Whole Tons.
Miscellaneous: Total Tonnage, . . . .	2,903	25,923	28,825

**Description of Equipment.**

Item.	Total Number at end of Year.	EQUIPMENT FITTED WITH TRAIN BRAKE.		EQUIPMENT FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Total Locomotives, . .	2	2	Westingh'use Aut.	.....	.....
Total Passenger Cars, .	4	4	“	4	Miller.

**Mileage.**

*a.* MILEAGE OF ROAD OPERATED.

Line in Use.	Line Represented by Capital Stock. Main Line.	Total Mileage Operated.	Iron Rails.	Steel Rails.
Miles of single track, . . . .	2.25	2.25	....	2.25
Miles of yard track and sidings, .	1.72	1.72	1.72	....
Total Mileage operated, . . .	3.97	3.97	1.72	2.25

*b.* MILEAGE OF LINE BY STATES AND TERRITORIES.

Mileage owned and operated by road making this report :

State or Territory.	Line Represented by Capital stock. Main Line.	Steel Rails.
Connecticut, . . . . .	2.25	2.25

**Renewals of Rails and Ties.****NEW RAILS LAID DURING YEAR.**

Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.
Steel, . . . .	11	56 lbs.	\$39.00

**NEW TIES LAID DURING YEAR.**

Kind.	Number.	Average Price at Distributing Point.
Chestnut, . . . . .	395	40 cts.

**Consumption of Fuel by Locomotives.**

Locomotives.	Bituminous Coal—Tons.	Hard Wood—Cords.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger and Freight, .	332.42	4.50	335.42	19,500	34.40
Average cost at distr. point,	\$4.62	\$5.00			

**Characteristics of Road.**

Alignment and profile have been changed from time to time as necessity required, but cannot give details.

**BRIDGES, TRESTLES, TUNNELS, ETC.**

Item.	No	Aggregate Length. Feet.	Minimum Length. Feet.	Maximum Length. Feet.
Bridges: Iron, . . . .	2	38	18	20

**Characteristics of Road.—Continued.****OVERHEAD CROSSINGS.**

Item.	No.	HEIGHT OF LOWEST ABOVE SURFACE OF RAIL.	
		Feet.	Inches.
Overhead Highway Crossings: Bridges, . . . . .	1	19	10

GAUGE OF TRACK — 4 feet, 8 $\frac{1}{2}$  inches; 2.25 miles.

**Telegraph.**

Owned by another company, but located on property of road making this report:

Miles of Line.	Miles of Wire.	Name of Owner.	Name of Operating Company.
2.25	6.75	Cheney Brothers.	Cheney Brothers.

**Oath.**

STATE OF CONNECTICUT,    }  
COUNTY OF HARTFORD,    } ss.

We, the undersigned, F. W. Cheney, President, and C. S. Cheney, Treasurer of the South Manchester Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

F. W. CHENEY,  
*President.*

C. S. CHENEY,  
*Treasurer.*

Subscribed and sworn to before me this 5th day of September, 1893.

RICHARD O. CHENEY,  
*Notary Public.*





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L A W S

RELATING SPECIALLY TO

R A I L R O A D S.

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# Statutes Relating Specially to Railroads.

## ARTICLE XXV.

### AMENDMENT TO CONSTITUTION.

*Adopted October, 1877.*

No County, City, Town, Borough, or other municipal-<sup>Town aid to</sup>ity, shall ever subscribe to the capital stock of any rail-<sup>railroad cor-</sup>road corporation, or become a purchaser of the bonds, <sup>porations pro-</sup>hibited. or make donation to, or loan its credit, directly or indirectly, in aid of any such corporation ; but nothing herein contained shall affect the validity of any bonds or debts incurred under existing laws, nor be construed to prohibit the General Assembly from authorizing any Town or City to protect by additional appropriations of money or credit any railroad debt contracted prior to the adoption of this amendment.

#### SECTION.

1. Meaning of "railroad company."
296. Appointment of railroad policemen.
297. Their powers.
298. Designated by badges.
331. Number of annual reports of Railroad Commissioners.
380. Estimates to be furnished for expenses of Board.
392. Petition for incorporation to be advertised.
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1429. Obstructions on railroads.
1431. Tampering with switches or signals.
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1472. Willful injury to engines or cars.
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#### SECTION.

1474. Nuisance on railroad bridge.
1517. Abandonment or obstruction of engines and cars.
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2700. Highways not to be laid out near railroads.
2712. Power of Superior Court over unsafe highways.
2959. Deeds of railroad companies.
2971. Right to land within limits of railroad or canal.
3022. Lien for services or materials.

SECTION 1. In the construction of all statutes of this State, words and phrases shall be construed according to the commonly approved usage of the language ; and technical words and phrases, and such as have acquired a peculiar and appropriate meaning in the law, shall be construed and understood accordingly.

G. S. 1875, 553.  
Words and  
phrases gener-  
ally.

1884, ch. 110.  
Railroad Com-  
pany.

The phrase "railroad company" shall be construed to mean and include all corporations, trustees, receivers, or other persons, that lay out, construct, maintain, or operate a railroad operated by steam power, unless such meaning would be repugnant to the context or to the manifest intention of the General Assembly.

1893, ch. 12.  
Railroad and  
steamboat po-  
licemen.

SECTION 1. Section 296 of the general statutes is hereby amended so that said section shall read as follows : The Governor may, from time to time, upon the application of any railroad, electric or other street railroad, or steamboat company, engaged in the business of transportation in this State, commission, during his pleasure, one or more persons designated by such company, who, having been duly sworn, may act at its expense as policeman upon the premises used by it in its business, or upon its cars or vessels. When any such commission is issued or revoked, the Executive Secretary shall notify the clerk of the Superior Court of each county in which it is intended that such policeman shall act.

1893, ch. 14.  
Their powers.

SEC. 2. Section 297 of the general statutes is hereby amended so that the same shall read as follows : Every railroad, electric or other street railroad, or steamboat policeman, may arrest in his precincts for all offenses committed therein, and bring the offenders before proper authority.

1893, ch. 14.  
To wear a  
shield.

SEC. 3. Section 298 of the general statutes is hereby amended so that said section shall read as follows : Every such policeman shall, when on duty, wear, in plain view, a shield bearing the words, "Railroad Police," "Street Railroad Police," or "Steamboat Police," as the case may be, and the name of the company for which he is commissioned.

1885, ch. 115.  
1887, ch. 92.  
Number of an-  
nual reports to  
be printed.

SEC. 331. He [the Comptroller] shall cause to be printed at the expense of the State, annually, such number of copies of each of the following annual reports, as is hereinafter stated, that is to say : Of the Railroad Commissioners, twenty-two hundred.

1885, ch. 40.  
1887, ch. 5, § 10.  
Reports of pub-  
lic officers.

SEC. 376. All reports and returns which any public officer is required by law to make, annually, to the Governor, shall be for the fiscal year preceding, and all reports and returns which any such officer is required by law to make to the Governor or General Assembly, biennially, shall be for the two fiscal years preceding ; and all such reports and returns as are required to be made annually, except where it is otherwise provided,

shall be made, returned, and printed on or before the first day of November in the year in which they are required to be made. And all such reports and returns as are required to be made biennially, shall be made, returned, and printed on or before the first day of November preceding the next regular session of the General Assembly. All other reports now required to be made annually to the General Assembly shall hereafter be made to the Governor at the same period of the year as now required to be made to the General Assembly.

SEC. 380. The estimates for the different classes of 1884, ch. 108.  
 expenditures shall be made as follows, to wit: For By whom to be made.  
 . . . the Railroad Commissioners, . . . The estimates herein required to be made shall be prepared according to such forms as shall be prescribed and furnished by the Treasurer and Secretary. And the Comptroller shall cause a sufficient number of the estimates to be printed and delivered to the General Assembly on the second day of its session.

SEC. 392. No petition for the incorporation of any railroad, horse railroad, canal, or turnpike company, or for an alteration of the charter of any such company, shall be heard by the General Assembly, unless public notice shall be given by advertisement, in some newspaper published in the county where such railroad, horse railroad, canal, or turnpike is proposed to be, or is located, at least three weeks before the first day of the session to which such petition is brought, designating the intended route of such railroad, canal, or turnpike, the streets, highways, and other intended route of such horse railroad, or the proposed alteration of such charter; nor unless the petition for such railroad company is accompanied with, and supported by, the report of a skillful engineer, founded on examination, showing the general profile of the surface of the country through which said railroad is proposed to be made, the manner of its construction, the feasibility of the route, the character of the soil, and probable expense of constructing the same.

SEC. 393. No act of incorporation or alteration thereof shall be granted by the General Assembly, except upon a petition therefor, when the law requires that notice of such petition shall be given by advertisement. Every charter of a railroad company, or horse railroad company, shall confine the road within the limits indicated by said notice, specify the towns, and, in case of a horse railroad, the streets or highways through which it may pass, and otherwise designate the

G. S. 1875, 79.  
 Petition for incorporation or alteration of charter of a railroad, horse railroad, canal, or turnpike company.

G. S. 1875, 79.  
 What charters granted only on petition. Charters of railroad and horse railroad companies.

route on which the respective roads may be authorized to be made.

1885, ch. 110,  
§ 111.  
Trustee of rail-  
road company  
to release inter-  
est, when.

SEC. 517. The trustee of the estate of any railroad corporation in settlement as an insolvent estate may, if the assets of such estate shall not otherwise be sufficient to pay the claims allowed by the commissioners and the expenses of settling the estate, release, subject to any prior existing lien or title to any proprietors of land, any right of way or other easement or incumbrance which said corporation may have in or upon the same, upon such terms as shall be approved by the Court of Probate.

1884, ch. 41.  
Attachments of  
machinery, en-  
gines, etc.

SEC. 918. Attachments of machinery, engines, or implements, situated and used in any manufacturing or mechanical establishment or of the household furniture of any person having a family, and used by him in housekeeping, or of any hay or unthreshed grain deposited in any building, or of any crop deposited in any building, or of brick in kilns, or of wood, sawed lumber, railroad ties, or logs when gathered together in piles, which cannot, in the opinion of the officer levying upon the same, be moved without manifest injury, shall be effectual to hold the same, without any removal thereof; *provided*, the service of such attachment shall be completed and a copy of the process and of the accompanying declaration or complaint, with the officer's return indorsed thereon, particularly describing the property attached, shall be filed in the office of the town clerk of the town in which such property shall be situated within twenty-four hours after such attachment shall have been made; and when the levy is upon any such hay, unthreshed grain, crops, or brick, the officer shall also post a notice of his attachment on the outer door, or other conspicuous place, of the building in which such property is situated.

G. S. 1875, 439.  
Fire communi-  
cated by rail-  
way engine.

SEC. 1096. In all actions to recover for any injury occasioned by fire communicated by any railway locomotive engine in this State, the fact that such fire was so communicated shall be *prima facie* evidence of negligence on the part of the person or corporation who shall, at the time of such injury by fire, be in the use and occupation of such railroad, either as owner, lessee, or mortgagee, and of those who shall at such time have the care and management of such engine.

G. S. 1875, 459.  
Levy on inter-  
est of one rail-  
road company  
in road of  
another.

SEC. 1178. The levy of executions on the equitable right or interest which any railroad corporation may have in the whole, or any part of the real estate, right of way, or road bed of any other railroad corporation,



together with the income, rents, and profits which may be due, or coming due thereon, shall be by leaving a true and attested copy thereof with the treasurer, secretary, or clerk of said last-named corporation, with an attested certificate by the officer making such levy, that he levies upon such right or interest to satisfy such execution; and thereupon he shall post the same upon some sign-post in the town where such last-named corporation has its office or principal place of business in this State, and, as in cases of personal property, shall, at vendue, sell the same, together with such income, rents, and profits, or so much of them as shall be sufficient to satisfy said execution, and shall give to the purchaser a written conveyance of such right and interest, and shall also leave with such treasurer, secretary, or clerk, a true and attested copy of such execution, and of his return thereon; and the purchaser shall thereupon become entitled to said right and interest, and to all rents, profits, and income thereon, to which such debtor was entitled.

SEC. 1383. No suit against a railroad company for damages for the loss of life shall be brought by the executor or administrator of the deceased person, except within eighteen months from and after the death of such person.

G. S. 1875, 495.  
Actions against  
railroad com-  
panies for loss  
of life.

SEC. 1400. Every person who shall commit murder in the first degree, or who shall cause the death of another by willfully placing any obstruction upon any railroad, or by loosening, taking up, or removing any part of the superstructure of such railroad, or by willfully burning any building or vessel, shall suffer death.

G. S. 1875, 498,  
§ 2.  
Homicide, when  
punished by  
death.

SEC. 1403. Every servant of any railroad company, who shall in consequence of his intoxication, or any gross or willful misconduct or negligence, cause any loss of life, or the breaking of a limb, shall be imprisoned in the State prison not more than ten years.

G. S. 1875, 498,  
§ 5.  
Railroad ser-  
vants, liability  
for causing loss  
of life, etc.

SEC. 1429. Every person who shall willfully place any obstruction upon any railroad, or who shall loosen, tear up, or remove any part of a railroad, shall be imprisoned in the State prison not more than ten years; and if he shall do the same with intent to throw any locomotive or cars from the track of such railroad, or to obstruct any car in motion, he shall be imprisoned in such prison not more than thirty years.

G. S. 1875, 502,  
§ 1.  
Placing obstruc-  
tions on rail-  
roads.

SEC. 1431. Every person who shall willfully displace any switch upon any railroad, or injure or destroy any electric signal in use thereon, or any material or property appertaining thereto, or who shall interrupt the use

G. S. 1875, 502,  
§ 2.  
Displacement of  
switches or in-  
jury to signals  
on railroads.

of any wire, lever, pin, or battery, used to operate such signal or its connection therewith, shall be fined not more than one hundred dollars, and imprisoned in the State prison not more than ten years.

G. S. 1875, 505,  
§ 27.  
Willful throw-  
ing or shooting  
at locomotive  
or railroad cars.

SEC. 1471. Every person who shall willfully throw or shoot any missile at any locomotive or railroad car, whereby the safety of any person is endangered, shall be fined not less than fifty nor more than five hundred dollars, or imprisoned not more than one year, or both.

G. S. 1875, 505,  
§ 28.  
Willful injury  
to cars or en-  
gines.

SEC. 1472. Every person who shall willfully injure any engine or car, used upon any railroad, shall be fined not more than one hundred and fifty dollars, or imprisoned not more than one year, or both.

G. S. 1875, 505,  
§ 29.  
Nuisance on  
railroad tracks  
or in depots.

SEC. 1473. Every person who shall cast, empty, or discharge, or permit to be cast, emptied, or discharged, any filth, rubbish, foul or offensive wash, or water, or the contents of any privy, vault, cesspool, or sewer, upon or into any railroad or railroad depot in any city, shall be fined not more than fifty dollars, half of which shall be paid, by order of court, to the person furnishing to the proper officer information that leads to a conviction.

G. S. 1875, 505,  
§ 30.  
Nuisances on  
railroad bridges

SEC. 1474. Every person who shall commit any nuisance in or upon any railroad bridge, shall be fined not more than seven dollars, or imprisoned not more than thirty days, or both.

1873, ch. 92.  
Abandonment  
or obstruction  
of engines,  
cars, etc.

SEC. 1517. Every person who shall unlawfully, maliciously, and in violation of his duty or contract, unnecessarily stop, delay, or abandon any locomotive, car, or train of cars, or shall maliciously injure, hinder, or obstruct the use of any locomotive, car, or railroad, shall be fined not more than one hundred dollars, or imprisoned not more than six months.

G. S. 1875, 514,  
§ 15.  
Transportation  
of animals on  
railroads.

SEC. 1544. No railroad company, in transporting animals, shall permit them to be confined in cars more than twenty-eight consecutive hours, except when transported in cars in which they have proper food, water, space, and opportunity for rest, without unloading them for food, water, and rest for at least five consecutive hours, unless prevented by storm or other accidental cause; and in estimating such confinement, the time during which the animals have been confined, without such rest, on connecting roads from which they are received, shall be included. Animals so unloaded shall be properly fed, watered, and sheltered during such rest by the owner or person having their custody, or, on his neglect, by the railroad company transporting them, at his expense; and such company shall, in such case, have a

lien upon such animals for food, care, and custody furnished, and shall not be liable for any detention of them for such purpose; and any such company, owner, or custodian of such animals, who shall not comply with the provisions of this section, shall be fined not less than one hundred, nor more than five hundred dollars. The knowledge and acts of agents of, and of persons employed by such company, in regard to animals transported, owned, or employed by it, or in its custody, shall be held to be its acts and knowledge.

SEC. 1573. Every person who shall enter upon, or cross a railroad at any private way which is closed by gates or bars, and shall neglect to securely close them, shall be fined not less than two, nor more than ten dollars, and shall be liable for any damage resulting therefrom.

1876, ch. 7.  
Neglect to close gates, bars, etc., on railroads.

SEC. 1591. Every person who shall fraudulently evade, or attempt to evade, the payment of any fare, lawfully established by any steamboat company located in this State, or by any railroad company, shall be fined not less than five nor more than twenty dollars.

G. S. 1875, 525, § 8.  
Fraudulent evasion of payment of fare.

SEC. 1611. When a fine, penalty, or forfeiture is imposed by any statute, as a punishment for any offense, and any part thereof is given to the person aggrieved, or to him who shall sue therefor, and the other part to the State, county, or town, all proper informing officers shall make presentment of such offense to the court having cognizance thereof; and the whole of such fine, penalty, or forfeiture shall, in such case, belong to the State, county, or town, as the case may be. All persons arrested for offenses committed upon cars or steamboats may be prosecuted before any court, in the same manner as if such offenses had been committed in the town in which such court is held.

G. S. 1875, 532. §§ 3, 7.  
1886, ch. 52.  
Who may prosecute in *quidam* suits.

SEC. 1927. No person shall vote at any meeting of the stockholders of any bank or railroad company, by virtue of any power of attorney not executed within one year next preceding such meeting; and no such power shall be used at more than one annual meeting of such corporation.

G. S. 1875, 279, § 11.  
Proxies.

SEC. 1988. When land shall be taken for railroad purposes, or for any other use public in its character, and the amount found due by the court as damages for taking said land shall be deposited with a county treasurer for the use of the owner of the land so taken, and if such deposit shall not be claimed and taken by the owner thereof for the term of three years from the time such deposit is made, it shall be the duty of the county

1880, ch. 58.  
Proceeds from sale of land to public, how kept for owner.

treasurer to pay such deposit to the treasurer of the State, to be by him kept for the persons owning the same, their heirs and assigns; and such payment shall be a discharge to said county treasurer of any liability for such deposit.

G. S. 1875, 34,  
§ 3.  
Officer may arrest without warrant, when.

SEC. 2002. Sheriffs, deputy sheriffs, constables, borough bailiffs, police officers, and railroad and steamboat police, in their respective precincts, shall arrest, without previous complaint and warrant, any person for any offense in their jurisdiction, when the offender shall be taken or apprehended in the act, or on the speedy information of others; and all persons so arrested shall be immediately presented before proper authority.

G. S. 1875, 517,  
§ 11.  
Gaming on public conveyances.

SEC. 2557. Every person who shall play at any game, for any valuable thing, or shall solicit another to do the same, upon any public conveyance, and every person who shall win or lose any valuable thing by so playing, or betting on such play, or by sharing in any stake or wager of others who so bet or play, shall be fined not more than two hundred dollars, and imprisoned not less than one, nor more than six months.

G. S. 1875, 232,  
§ 8.  
Location of timbers in bridges over railroad tracks.

SEC. 2671. The bottom timbers of all bridges, hereafter constructed over any railroad track, shall not be less than eighteen feet above the rails, unless the Railroad Commissioners require a less height and prescribe the same in writing.

1893, ch. 264.  
Grade of railroads and height of bridges, how changed.

SECTION 1. Every railroad company, after its line of road shall have been located, approved, and established, may alter the grades of its lines, and may raise any highway bridges that pass over the tracks to such height as may be approved by the Railroad Commissioners, upon application made to them for such approval, and may change the grade of the approaches to such bridges so as to conform to the change in the height of the bridges; but no railroad company may, under the provisions of this act, raise the grade of its tracks so as to lessen the height of an existing bridge over its tracks, without the approval of the Railroad Commissioners.

Amount of damages.

SEC. 2. Damages accruing to any adjoining proprietor on account of any change of grade on the highways which are approaches to any railroad bridge, raised under the provisions of this act, shall be assessed and paid by the railroad companies in accordance with the provisions of Chapter CCXX of the public acts of 1889.

SEC. 3. This act shall take effect upon its passage.



SEC. 2673. Any person injured in person or property by means of a defective road or bridge may recover damages from the party bound to keep it in repair; but no action for any such injury shall be maintained against any town, city, corporation, or borough, unless written notice of such injury, and the nature and cause thereof, and of the time and place of its occurrence shall, within sixty days thereafter, or if such defect consist of snow or ice, or both, within fifteen days thereafter, be given to a selectman of such town or to the clerk of such city, corporation, or borough; and when the injury is caused by a structure legally placed on such road by a railroad company, it, and not the party bound to keep the road in repair, shall be liable therefor.

1883, ch. 105.  
Persons injured on defective highways may recover damages.  
Notice of injury how given.  
1 Root, 270, 448.  
2 Root, 436.  
7 Conn., 86.  
17 Conn., 475.  
18 Conn., 32.  
30 Conn., 12, 35, 543.  
36 Conn., 320.  
34 Conn., 136.  
35 Conn., 314.  
37 Conn., 414, 298, 618.  
39 Conn., 222, 376.  
40 Conn., 205, 238, 456.

42 Conn., 294. 43 Conn., 36, 562. 44 Conn., 117. 46 Conn., 56, 263. 47 Conn., 59, 461. 48 Conn., 460. 49 Conn., 134. 51 Conn., 405. 50 Conn., 496, 579. 53 Conn., 212. 54 Conn., 9, 574.

SEC. 2692. Section 2692 of the general statutes is hereby amended to read as follows: Any person traveling upon any public street or highway which is crossed by a railroad, who shall be obstructed or prevented from crossing such railroad for a longer time than five minutes, by reason of trains, cars, or locomotives standing upon or across such street or highway, may recover ten dollars and costs from the corporation owning or operating said railroad; *provided*, suit is brought within thirty days after the date of such obstruction.

SEC. 2693. When any railroad crosses a highway in any city at grade within two hundred feet of a covered bridge on said highway, such highway shall not be obstructed by the making up of railroad trains, nor by allowing any train, car, or locomotive to stand on or across said highway for more than three minutes at one time; and whenever such highway has been once so used or occupied, or whenever a locomotive or train has passed entirely over it, said highway shall not again be so used or occupied or crossed by locomotive or cars, until a sufficient time has been allowed to enable all teams which are ready and waiting for the purpose to cross the tracks of said railroad. Any servant, agent, or employé of any railroad corporation willfully violating any provision of this section, shall be fined not more than seven dollars, or imprisoned not more than thirty days, or both.

SEC. 2700. No highway which does not cross a railroad track shall be laid out or opened to the public within one hundred yards of any railroad track, unless

1878, ch. 134.  
Highways laid out within one hundred yards

of railroad track and not crossing same to be approved by judge of Superior Court.

the layout has been approved by a judge of the Superior Court, after notice to all parties in interest, and his written approval lodged in the office of the town clerk of the town in which the proposed highway is situated. No judge shall approve any such layout unless he finds the public convenience and necessity require such highway to be within such distance, and upon such approval the judge may require any town opening a highway to the public within such distance to erect and maintain such a fence between such highway and the railroad track as in their opinion the safety of the public may require.

1889, ch. 170.  
Proceedings on condemnation of public or private way by railroad company.

Whenever a railroad company shall have acquired the right to take any part of a public highway or a private way, it shall, before taking possession of the same, apply to some judge of the Superior Court, as provided in section 3464 of the general statutes, for the appointment of appraisers to ascertain all damages that may arise to any person in consequence of the taking and occupation of the highway or private way. The appraisers, so appointed, shall be sworn, and shall give notice of the time and place of their meeting by posting on the sign-posts of the town where the highway or private way is situated, and also by advertising once a week for four consecutive weeks in a newspaper published in said town, and if no newspaper is published in said town, then in a newspaper published in the county. They shall also give reasonable notice, in writing, to the persons owning the land occupied by the highway or private way, and taken for such railroad purposes. At the meeting of the appraisers, any person claiming that he will be damaged by the taking and occupation of such highway or private way shall be heard, whether he is the owner of the land or not; and the appraisers shall award such damages as may seem to them to be just and reasonable. Further proceedings in connection with the condemnation of land shall be as prescribed by section 3464 of the general statutes.

G. S. 1875, 237, § 36.  
When portion of highway taken by railroad company leaves remainder unsafe, Superior Court may order change, etc.

SEC. 2712. The Superior Court of the county in which is any highway, or any portion thereof, taken by any other than a horse railroad company for railroad purposes, but not in a city or borough which has control of its highways, nor constructed since such railroad, may, upon the petition of any party interested, served upon said company as other civil process, appoint a committee of three to inquire whether such highway or portion thereof is unsafe for travel by reason of such railroad,

or whether any alteration of such highway or the construction of a new highway is thereby rendered necessary for the public safety and convenience ; and such committee shall hear said parties and report their opinion thereon to said court, which may make any proper order in the premises ; and if it shall order any such alteration or construction, and said company shall refuse to comply with such order, said town shall alter or construct such highway and may recover the expense thereof from said company.

SEC. 2959. Whenever any railroad company shall make and properly execute a deed in fee simple of any lands, which said company has derived by purchase, said deed shall effectually convey the title to said lands, to the absolute use of the grantee.

SEC. 2971. If the owner or occupant of any land adjoining any railroad or canal has, since the tenth day of June, one thousand eight hundred and thirty-one, taken, or shall take, into his enclosure any part of the land belonging to said railroad or canal, as located and established, or since that time has erected, or shall erect, any building upon any such land, no adverse possession of the land so enclosed or built upon shall confer any title thereto.

SEC. 3022. Every railroad, for the construction of which, or of any of its appurtenances, any person shall have a claim for materials furnished or services rendered, under any contract with or approved by the corporation owning or managing such railroad, shall, with its real estate, right of way, material, equipment, rolling stock, and franchise, be subject to the payment of such claim ; and said claim shall be a lien on said railroad, railroad property, and franchise, and the manner of asserting and perfecting such lien, by notice, certificate, and foreclosure, shall be in all respects in accordance with the provisions of the four preceding sections ; except that the certificates of the lien and of its discharge shall be filed in the office of the Secretary of the State, who shall record them in a book kept for that purpose.

1875, ch. 14.  
Deeds of railroad companies.

G. S. 1875, 355,  
§ 20.  
Right to land within limits of railroad or canal not gained by possession.

G. S. 1875, 361,  
§ 13.  
Lien on railroad for services or materials furnished for its construction.  
41 Conn., 454.

*Title LXVI.*

## RAILROADS.

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*Chapter CCX.*

## RAILROAD COMMISSIONERS.

## SECTION.

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 3416. Office and clerk.  
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 3418. Salaries and contingent expenses, how paid.  
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3420. To give notice before approving layout.  
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1887, ch. 5, § 37.  
 Appointment  
 and term of  
 Railroad Com-  
 missioners.

SEC. 3413. There shall be three Railroad Commissioners. The Governor shall, within sixty days from the organization of the General Assembly at its regular session in 1889 and within sixty days from the organization of said assembly, at its regular session quadrennially thereafter, nominate, and with the advice and consent of the Senate shall appoint, two Railroad Commissioners, and shall within sixty days from the organization of the General Assembly at its regular session in 1891, and within sixty days from the organization of said assembly at its regular sessions quadrennially thereafter, nominate, and with the advice and consent of the Senate shall appoint one Railroad Commissioner. The commissioners so appointed shall hold their respective offices for four years from the first day of July next succeeding their respective appointments. The Senate shall act on all nominations of the Governor within ten days after they are made. If the Governor shall fail to nominate, within the sixty days herein prescribed, a person or persons for Railroad Commissioner or Commissioners who shall be confirmed by the Senate, the General Assembly shall fill the vacancy which would otherwise occur.

General Assem-  
 bly shall fill va-  
 cancies, when.  
 43 Conn., 351.



SEC. 3414. One of the Railroad Commissioners shall be a lawyer in good standing in his profession, and of at least ten years' practice. One of said Railroad Commissioners shall be a capable and experienced civil engineer, of at least ten years' practice in his said business of civil engineer; and the other of said Railroad Commissioners shall be a good practical business man, and they shall be and constitute the Board of Railroad Commissioners.

SEC. 3415. If any vacancy occurs in said Board of Railroad Commissioners at a time when the General Assembly is not in session, the Governor shall appoint a Railroad Commissioner to fill such vacancy until the rising of the next session of the General Assembly; and all other vacancies shall be filled for the remainder of their respective terms in the manner provided by section 3413; and no stockholder or agent of any railroad company shall be a commissioner.

SEC. 3416. The board shall appoint a clerk and have an office in Hartford where its records shall be preserved, which shall be kept open during the usual business hours. If the Comptroller does not furnish said board a proper office, it may hire one at an annual rent not exceeding five hundred dollars.

SEC. 3417. The Railroad Commissioners shall keep a record of all communications addressed to them officially, of all their official acts and proceedings, and of all facts learned in relation to any casualty, with the names of the persons from whom they were derived, or by whom they may be proved, may employ experts or other agents when necessary, and shall have the powers and be subject to the duties hereinafter specified.

SEC. 3418. The office expenses and salaries of the board shall be paid monthly from the treasury, and in July in each year the whole amount so paid during the year ending the fourth day of July shall be apportioned by the Comptroller among the several railroad companies in proportion to the length of the main track or tracks of their respective railroads in this State, and each company and the trustees, assignees, lessees, or other parties operating any such railroad shall pay the Treasurer their proportion of such amount.

SEC. 3419. The Railroad Commissioners shall have the right to pass free of charge in the performance of their duties, on all railroads in the State, and to take with them any person in their official employment.

SEC. 3420. Before the Railroad Commissioners shall approve the laying out of any railroad, or the taking of

1877, ch. 144.  
Composition of  
board.  
43 Conn., 351.

1877, ch. 144.  
Vacancies filled  
by Governor,  
when.

1877, ch. 144.  
Office and clerk.

1877, ch. 144.  
Records, and  
employment of  
experts.

1877, ch. 144.  
1878, ch. 50.  
Salaries and  
contingent ex-  
penses.

G. S. 1875, 319,  
§ 8.  
To pass free on  
railroads.

G. S. 1875, 319,  
§ 9.

To give notice  
before approval  
of layout, etc.

any real estate for the purposes of said road, or any change or alteration of the same, they shall give reasonable notice to all persons having an interest in such estate to attend and be heard; and the appraisers shall cause a like notice to be given to all persons interested in the real estate taken or proposed to be taken; and if any such person resides out of this State, or is a *feme covert*, infant, or *cestui que trust*, or *non compos mentis*, any judge of the Superior Court may prescribe the notice to be given to such person.

G. S. 1875, 320,  
§ 10.  
To certify that  
road is safe be-  
fore it is opened.

SEC. 3421. No part of any railroad shall be opened for public travel unless the railroad company shall first obtain a certificate signed by the Railroad Commissioners, that such road is in a suitable and safe condition.

G. S. 1875, 320,  
§ 11.  
To examine  
railroads at  
least twice a  
year.

SEC. 3422. The Railroad Commissioners shall, at least twice in each year, examine the several railroads in the State, and shall make a like examination of any railroad within the limits of any town, when thereto requested in writing by the selectmen, and shall see that the same are kept in suitable repair, and that the railroad companies faithfully comply with all provisions of law.

G. S. 1875, 320,  
§ 12.  
General duties.

SEC. 3423. Said Commissioners shall cause such portion of the laws relating to railroads as they deem proper to be posted as they shall direct; and may at any time, and on the complaint in writing of five of the stockholders or creditors of any railroad company assigning sufficient reason, shall examine its railroad and all its appurtenances, engine and cars, and its by-laws and rules, and in such examinations shall pass over the road at a rate not exceeding six miles an hour, and shall stop at each culvert, bridge, and piling, and examine the same, and shall examine the rails and ties in every mile, notifying the company in writing of the time of such examinations, and shall notify the company to make all repairs required within a time limited; shall make such rules as to platforms and out-buildings at stations as are for the public interest; may prescribe the time during which any ticket office shall be open for the sale of tickets; and no company neglecting such order shall receive more than the regular ticket price for fare; shall make necessary orders for compelling companies to furnish comfortable seats for passengers, and for regulating the manner in which companies shall manage their engines and cars at highway crossings; shall direct that suitable warning boards be put up at dangerous crossings; may require companies to maintain a gate across a highway at any crossing, and to provide an agent to open or close

the same; shall, when two roads meet or intersect, at the request of the directors of the company owning either, prescribe rules relative to the exchange of passengers and luggage; and shall cause printed copies of sections 3550, 3551, and 3552 to be kept posted up at all railroad stations.

SEC. 3424. The Railroad Commissioners, when requested in writing by the selectmen of any town, the mayor and common council of any city, or the warden and burgesses of any borough (in cases where the borough has charge of the highways within the same), to order a gate or electric signal to be erected, or a flagman to be stationed at any railroad crossing within their respective towns, cities, or boroughs, shall visit such place, first giving the authorities making such request reasonable notice thereof, and if the public safety requires it, shall order the company operating said railroad to maintain a gate or electric signal, or to keep a flagman at said place, or to do any other act at said place needful for the protection of the public, and may specify when said gate shall be opened and closed, or when flagmen shall be on duty, and may change any such order when they deem it necessary, first visiting the town, city, or borough in which said crossing is located, and there giving the authorities thereof an opportunity to be heard thereon; and if any railroad company shall neglect to station flagmen, or maintain gates or electric signals as ordered by said Commissioners, or shall neglect to comply with any order of said Commissioners provided for by this section, it shall forfeit to the State fifty dollars for each day of such neglect. <sup>1884, ch. 59.  
May order gates, flagmen, and signals.</sup> <sup>Penalty for neglect.</sup>

SEC. 3425. When the Railroad Commissioners, on application as provided in the preceding section, shall make an order as provided therein, or refuse to make the same, their decision shall be communicated to the parties in interest within thirty days from the final hearing on the same, and either party aggrieved by such decision may appeal therefrom to the Superior Court, in the manner and with like effect as provided for appeals in section 3518, and in all cases in which on an appeal, as aforesaid, an order shall be passed by the Superior Court, said court may at any time upon the application of either party, with due notice to adverse parties, annul or vary such order; *provided* that said court shall find that there has been a change of circumstances surrounding said crossing. <sup>1883, ch. 115.  
Appeals.</sup> <sup>1889, chap. 216.</sup>

SEC. 3426. The Railroad Commissioners shall, from <sup>G. S. 1875, 320,  
§ 14.</sup>

May make recommendation.

time to time, recommend in writing to the several railroad companies, or any of them, the adoption of such measures and regulations as such Commissioners deem conducive to the public safety and interest; and shall report any neglect to adopt such recommendations to the next General Assembly.

### Chapter CCXI.

#### ADDITIONAL PROTECTION TO BRIDGES, TRESTLES, AND PILINGS.

##### SECTION.

3427. Commissioners may order guard-rails on railroad bridges.  
3428. Penalty.  
3429. May apply for injunction against any company, when.

##### SECTION.

3430. Power to examine witnesses; penalty for resisting.  
3431. Fees of witnesses.  
3432. Report to General Assembly.

1878, ch. 96.  
Commissioners may order guard-rails on railroad bridges.

SEC. 3427. When the Railroad Commissioners shall deem it necessary for the safety of persons traveling upon any railroad in this State that guard-rails or any other appliances to secure safety should be placed upon any bridge belonging to such railroad, said Commissioners may order the company owning or operating such railroad to place such additional guards upon said bridge as they may deem necessary and proper to accomplish the object aforesaid.

1878, ch. 96.  
Penalty for non-compliance.

SEC. 3428. Any railroad company which shall neglect or refuse to comply with any such order, shall forfeit to the treasurer of the State twenty-five dollars for each day of such neglect or refusal.

G. S. 1875, 321, § 15.  
May apply for injunction against corporation, when.

SEC. 3429. If, upon examination of any railroad, or the affairs of any railroad company, the Commissioners shall be of the opinion that such road is in such condition, or that its affairs are so conducted as to endanger the safety of the public, or that the company has violated the law, or refused to obey the directions of said Commissioners or of any judge of the Superior Court, made pursuant to the powers given in this title, they may within one year after said examination make application to any judge of the Superior Court for an injunction to restrain any person from exercising or attempting to exercise the duties of any officer in such company; and said judge may proceed thereon as the Superior Court may do on complaints for an injunction.

G. S. 1875, 321, § 16.  
Power to examine witnesses.  
Penalty for resisting.

SEC. 3430. The Railroad Commissioners may summon and examine under oath such witnesses as they may think proper in relation to the affairs of any railroad company; and whoever shall refuse, without justifi-



fiable cause, to appear and testify, or who shall in any way obstruct any Railroad Commissioner in the discharge of his duty, shall be fined not more than one thousand dollars, or imprisoned not more than one year or both.

SEC. 3431. The fees of witnesses summoned by the Railroad Commissioners to appear before them under the provisions of the preceding section, and the fees for summoning such witnesses, shall be taxed by the Commissioners and paid by the Treasurer of the State upon the order of the Comptroller.

SEC. 3432. The Railroad Commissioners shall make a report of the general conduct and condition of all railroads, and of any violation of law by any of them, to each General Assembly not later than the fourth week of its session, with such suggestions for legislation as they may deem proper.

1881, ch. 13.  
Fees of witnesses.

G. S. 1875, § 321,  
§ 17.  
1876, ch. 37.  
1883, ch. 66.  
Report to General Assembly.

## Chapter CCXII.

### ORGANIZATION.

#### SECTION.

- 3433. General railroad law.
- 3434. Articles of Association.
- 3435. Capital stock; name.
- 3436. Engineer's report; affidavit by directors.
- 3437. Subscriptions to stock.
- 3438. Corporate powers.
- 3439. Obtaining right of way.
- 3440. Limitation of time for commencing and completing road.
- 3441. Crossing of navigable waters.
- 2668. Bridges across navigable streams to have draws.
- 3442. Other companies prohibited from holding stock.
- 3443. Companies may consolidate; proviso as to outstanding bonds and competing lines.

#### SECTION.

- 3444. Consolidation, how effected.
- 3445. Agreement to be ratified by stockholders.
- 3446. Powers of consolidated company.
- 3447. Issue of bonds.
- 3448. Such issue regulated.
- 3449. Where to sue or be sued.
- 3450. Proceedings for permission to increase capital stock.
- 3451. Finding, report, and recommendation by commissioners.
- 3452. Capital stock not to be increased without special authority.
- 3453. Limitation of preceding provisions.

SEC. 3433. Any number of persons not less than twenty-five may form a company for the purpose of constructing, maintaining, and operating a railroad for public use in the conveyance of persons and property.

SEC. 3434. The persons forming such railroad company shall make and sign articles of association, in which shall be stated : first, the name of the company ; second, the place where its principal office or place of business is located, which shall be and continue in this State; third, the places from and to which and the names of all the towns through and into which it is proposed to construct, maintain, and operate said road; fourth, the length of said railroad, as nearly as may be,

G. S. 1875, § 315,  
§ 1.  
General railroad law.

G. S. 1875, § 315,  
§ 2.  
Articles of association.

and the amount of capital stock of the company, which shall not be less than ten thousand dollars for every mile of road proposed to be constructed; fifth, the names and residences of not less than nine directors of said company, who shall be chosen by the persons subscribing said articles of association, and a majority of whom shall always be residents of this State, and who shall manage its affairs for one year; but the amount of the funded and floating debt of any such corporation shall at no time exceed the amount of cash actually paid in upon its capital stock.

G. S. 1875, 316,  
§ 3.  
Capital stock.  
Name.

SEC. 3435. The capital stock of said company shall be divided into shares of one hundred dollars each, and each subscriber to such articles of association shall subscribe thereto his name, residence, and the number of shares he agrees to take in such company; and on compliance with the provisions of the succeeding sections of this chapter, such articles of association may be filed in the office of the Secretary of the State, who shall endorse thereon the day they are filed, and record them; and thereupon the persons who have subscribed such articles, together with all persons who shall become stockholders of such company, shall be a corporation by the name specified in such articles.

G. S. 1875, 316,  
§ 4.  
Engineer's report to accompany the articles of association.

SEC. 3436. Such articles of association shall not be filed and recorded unless they are accompanied by the report, under oath, of a skillful engineer, founded on an actual examination of the route, showing the character and structure of the proposed road-bed, with its indications of rock or earth cuttings; the manner in which it is proposed to construct said railroad; the general profile of the surface of the country through which it is proposed to be made; the feasibility of the route and an estimate of the probable expense of constructing the same; a copy of which report shall be kept on file in the office of the Secretary of the State; nor shall such articles of association be filed and recorded until at least five thousand dollars of stock for every mile of railroad proposed to be made is subscribed thereto, and ten per cent. of such subscription paid in cash to the directors named in said articles, nor unless there is annexed thereto an affidavit made by at least three of said directors, that the amount of stock required by this section has been in good faith subscribed, and ten per cent. in cash paid thereon as aforesaid, and that it is intended in good faith to construct the road named in such articles; and a copy of any articles of association filed and recorded as aforesaid, or of the record thereof, certified

Affidavit by directors.

by the Secretary of the State, shall be *prima facie* evidence of the due formation, existence, and capacity of said corporation

SEC. 3437. When such articles of association are recorded in the office of the Secretary of the State, the directors may, in case the whole of the capital stock is not subscribed, open books of subscription to the same in such places and on such notice as they may deem expedient, and may continue to receive subscriptions until the whole of the capital stock is subscribed; and no subscription shall be received or taken without such payment of ten per cent.; but such company shall not commence the construction of its road until at least ten thousand dollars a mile is subscribed to the capital stock thereof by responsible persons.

G. S. 1875, 316,  
§ 5.  
Subscriptions  
to the capital  
stock.

SEC. 3438. Every railroad company may hold such real estate as may be convenient for accomplishing the objects of its organization; may by its agents enter upon such places as may be designated by its directors, for the purpose of making surveys and determining the line whereon to construct said railroad; and may construct, equip, and maintain a railway, with one or more tracks, over the route specified in its charter or articles of association, and transport persons or property thereon by any power.

G. S. 1875, 317,  
§ 6.  
Powers of the  
company.

SEC. 3439. No land shall be taken except as hereafter in this chapter provided, without the consent of its owner, except within two years after the approval of the location of the route by the Railroad Commissioners; and when the lands of any *feme covert*, infant, *cestui que trust*, or person *non compos mentis*, shall be necessary for the construction of any railroad, said lands may be taken on giving notice to the husband of such *feme covert*, the trustee of any such *cestui que trust*, the guardian, either natural or appointed, of such infant, and the conservator of such person *non compos mentis*, who may respectively release all damages for lands, so taken, as fully as if the same were holden in their own right.

G. S. 1875, 317,  
§ 7.  
1882, ch. 140.  
Right of way to  
be obtained  
within two  
years.

Trustees,  
guardians, etc.,  
may release.

SEC. 3440. If any railroad company formed under the provisions of this chapter shall not, within two years after its articles of association are filed and recorded in the office of the Secretary of the State, commence the construction of its road, and expend thereon ten per cent. of the amount of its subscribed capital, or shall not finish or put in operation its railroad within five years from the time of filing and recording its articles of association as aforesaid, its corporate existence and powers shall cease: *provided*, that the Railroad Commissioners

1882, ch. 140.  
Limitation of  
time for com-  
mencing and  
completing  
road.

shall extend the time for the commencement of such railroad and expending ten per cent. and for taking lands, for a period or periods not exceeding, in the whole, two years beyond the time of two years hereinbefore referred to, if said railroad company has been prevented by litigation, or by the opposition of any party, from complying with the provisions of this section.

1882, ch. 140.  
Crossing of navigable waters.

SEC. 3441. Any railroad company organized under the provisions of this chapter may construct its railroad across navigable waters, when said railroad company shall have filed in the office of the Secretary of the State a sworn statement of a competent engineer, approved by the Railroad Commissioners and the president and treasurer of said railroad company, that there has been expended in the construction of their railroad in this State, a sum equal to ten thousand dollars for each mile of their said railroad within this State between either terminal point in the location of said road and the proposed location of said bridge; *provided*, that no bridge shall be constructed across any river or harbor nearer the sea than some existing bridge across such river or harbor; and *provided*, that all such bridges shall be constructed in such manner, and of such materials and with draws of such width for the passage of vessels, as the Railroad Commissioners shall authorize and direct; but nothing herein shall be construed to authorize any railroad company to construct or use a bridge for any but railroad purposes.

1881, ch. 151.  
Bridges across navigable streams to have a draw.

SEC. 2668. No bridge without a draw shall be built or maintained across any water navigated by open-deck vessels for business purposes, whose passage would be impeded thereby. . . .

1882, ch. 140.  
Other companies prohibited from holding stock of company established under these provisions.

SEC. 3442. No other railroad company shall subscribe for, take, or hold any stock or bonds of any railroad company established under the provisions of this chapter, either directly or indirectly, unless specially authorized by the General Assembly.

1883, ch. 79.  
Railroad companies may consolidate.  
Proviso as to outstanding bonds, and as to competing lines.

SEC. 3443. Any railroad company incorporated under the laws of this State for the purpose of building and operating a railroad within this State, extending to or beyond the boundary line of this State, may consolidate its capital stock, franchises, and property with the capital stock, franchises, and property of any other incorporated railroad company, whose line of railroad, built or to be built, is situated wholly outside this State, whenever the railroads of the companies thus consolidating form one continuous line of railroad from some point in this State to some point in an adjoining State; *provided*, that no



companies shall thus consolidate if, at the time of their consolidation, the aggregate outstanding bonds of the companies proposing so to consolidate exceed one-half of what has been actually expended upon the railroads of such consolidating companies, the amount of said outstanding bonds to be ascertained as follows: the same to be certified to the Comptroller in the case of each company by the written statement, under oath, of the president and treasurer of said company, and of an engineer approved by the Railroad Commissioners of this State; and false swearing in the matter shall be perjury; and provided, that no railroad companies shall be consolidated under this provision, whose railroads, built or to be built, run on parallel or competing lines.

SEC. 3444. Such consolidation shall be made as follows: The directors of the companies proposing to consolidate may enter into a joint agreement, under the corporate seal of each company, for the consolidation of said companies and railroads, and prescribing the terms and conditions thereof, the mode of carrying the same into effect, the name of the new company, the number and names of the directors and other officers thereof, and who shall be the first directors and officers, and their places of residence, the number of shares of the capital stock, the amount or par value of each share, and the manner of converting the capital stock of each of said companies into that of the new corporation, and how and when directors and officers shall be chosen, with such other details as they shall deem necessary to perfect such new organization and the consolidation of said companies or railroad. But in no case shall the capital stock of the company formed by such consolidation exceed the sum of the capital stock of the companies so consolidated, at the par value thereof, nor shall any bonds or other evidences of debt be issued for a consideration for, or in connection with, such consolidation.

SEC. 3445. Said agreement shall be submitted to the stockholders of each of said companies at a special meeting thereof, called separately for the purpose of taking the same into consideration; due notice of the time and place of holding said meeting and the object thereof shall be given by each company to its stockholders by written or printed notices addressed to each of the persons in whose names the capital stock of such company stands on the books thereof, and delivered to such persons respectively or sent to them by mail, when their post office address is known to the company, at least

1883, ch. 79.  
Consolidation,  
how effected.

1883, ch. 79.  
Agreement to  
be ratified by  
stockholders.

thirty days before the time of holding such meeting, and also by a general notice published daily for at least four weeks in some newspaper printed in the city, town, or county where such company has its principal office or place of business; and at the said meeting of the stockholders the agreement of the said directors shall be considered and a vote by ballot taken for the adoption or rejection of the same, each share entitling the holder thereof to one vote, and said ballot shall be cast in person or by proxy, and if two-thirds of all the votes of all the stockholders shall be for the adoption of said agreement, then that fact shall be certified thereon by the secretaries of the respective companies under the seals thereof, and the agreements so adopted, or a certified copy thereof, shall be filed in the office of the Secretary of the State, and shall thereafter be deemed and taken to be the agreement and act of consolidation of the said companies; and a copy of the said agreement and act of consolidation, duly certified by the Secretary of the State under his official seal, shall be evidence in all courts and places of the existence of said new company, and that the provisions of this and the two preceding sections have been fully observed and complied with.

1883, ch. 79.  
Powers of consolidated company.

SEC. 3446. Said consolidated company, when so formed, shall have and enjoy all the rights, franchises, property, and privileges which at the time of their consolidation were severally had or enjoyed by said constituent companies, subject to the provision that the consolidation permitted by this chapter shall not confer upon any railroad company any power or privilege not given by the laws of this State to all railroad companies organized under this chapter; and said consolidated company shall be subject as respects the construction, maintenance, operation, and taxation of that portion of its road built or to be built in each State, to the laws of such State as fully as if no consolidation had been made; nor shall the right of any creditor of any company thus consolidated be affected by such consolidation.

1883, ch. 79.  
Issue of bonds.

SEC. 3447. Said consolidated company may issue bonds, and secure the same by a mortgage of its entire franchises and property, both within and without this State, existing or to be acquired, or any part thereof, to one or more trustees, to be nominated by said company and approved by the Governor of this State; and said mortgage may provide for a foreclosure or sale of the entire road and franchises in both States, in case of a default upon the bonds, by judgment or decree of a court of competent jurisdiction in this State.

SEC. 3448. The provisions of section 3570 shall apply to the bonds and mortgage authorized by the preceding section. 1883, ch. 79. Such issue regulated.

SEC. 3449. Said consolidated company may sue and be sued in any county in this State into or through which its railroad or railroad route may extend; and not less than six of its directors shall be at all times citizens of this State. 1883, ch. 79. Where to sue or be sued.

SEC. 3450. When any railroad company shall desire to increase its capital stock, it shall make application to the Railroad Commissioners in writing, setting forth the amount to which and the purpose for which it is desired to make such increase. Whereupon the Commissioners shall fix a time and place for hearing such application, and require such notice thereof to be given as they may deem reasonable. 1878, ch. 116. Proceedings for permission to increase capital stock.

SEC. 3451. The Commissioners shall make a finding of all the essential facts presented to them in regard to such proposed increase of capital stock, and report the same to the next session of the General Assembly, with a recommendation whether such increase should be allowed or not, and, if allowed, the manner in which and terms upon which such stock should be issued. 1878, ch. 116. Finding of facts, report, and recommendation by Railroad Commissioners.

SEC. 3452. No railroad company shall increase its capital stock except by special authority of the General Assembly, nor shall such authority be given except upon the recommendation of the Railroad Commissioners as herein provided. 1878, ch. 116. Capital stock not to be increased without special authority.

SEC. 3453. Nothing contained in this chapter shall be construed to authorize the construction of any horse railroad in any city or borough; or the taking or using the track, wharves, depot, or depot grounds of any other company without its consent, except for the purpose of crossing or connection. G. S. 1875, 317, § 10. These provisions not to apply to horse railroads or authorize interference with existing railroads.

### Chapter CCXIII.

#### STEAM RAILROADS.

##### SECTION.

3454. What railroads included in the provisions of this chapter.  
3455. Company officers and by-laws.  
3456. Meetings, how called; stock votes.  
3457. Officers when not to vote on proxies.

##### SECTION.

3458. Stock not to be voted on, if assessments are unpaid.  
3459. Deposit to be made before applying for approval of layout.

SEC. 3454. All railroad companies which transport passengers or freight on their roads otherwise than by animal power alone, shall have all the powers and be subject to all the provisions contained in the succeeding G. S. 1875, 319, § 1. What railroads included in the provisions of this chapter.

sections of this chapter respecting such companies, except when otherwise specially provided in their charters.

1893, ch. 193.  
May use elec-  
tricity.

Any railroad company organized under and subject to the provisions of Title LXVI of the general statutes and amendments thereto is hereby authorized to operate its railroad by electricity, in addition to the motive power already employed in operating such railroad.

G. S. 1875, 319,  
§ 2.  
Company  
officers and  
by-laws.

SEC. 3455. The direction of the affairs of every such company shall be vested in a board of not less than nine directors annually chosen by the company, who may fill any vacancies which may occur in their number, and shall elect one of their own number president of the board, who shall also be president of the company, and may also choose a secretary who shall also be secretary of the company, and be sworn to a faithful discharge of his duty, and a treasurer who shall give bonds to the company in such sum as shall be required by the by-laws, for the faithful discharge of his trust, and such other officers as they may deem expedient, and may make by-laws and regulations in regard to the management of the stock, property, and affairs of said company.

G. S. 1875, 319,  
§ 4.  
Meetings, how  
called; stock  
votes.

SEC. 3456. All meetings of the company shall be called in such a manner as shall be provided in the by-laws, and at such meetings each member shall be entitled to one vote for each share held by him.

G. S. 1875, 319,  
§ 5.  
Officers, when  
not to vote on  
stock of others.

SEC. 3457. Every railroad company may prohibit the officers from voting in the election of directors upon any other stock than their own; and no officer of such company shall request any stockholder to execute a power of attorney to vote upon his stock; and no person shall be allowed to vote by virtue of a power so obtained; and any person who shall violate the provisions of this section shall be disqualified from holding any office in said company for one year thereafter.

G. S. 1875, 319,  
§ 6.  
Stock not to be  
voted on, if  
assessments are  
unpaid.

SEC. 3458. No subscriber to the capital stock of any railroad company shall be allowed to vote on any of said stock, unless all assessments or installments on it, legally called in by such company, shall have been paid in full.

1882, ch. 20.  
Deposit to be  
made by rail-  
road company  
before applying  
for approval of  
layout of its  
road.

SEC. 3459. Every railroad company, before applying to the Railroad Commissioners for their approval of the location of its road, shall deposit with the State Treasurer a sum equal to eleven dollars per mile of the length of its proposed road in this State. And the Comptroller shall include such company among the several railroad companies in his next annual apportionment of the office expenses and salaries of the board, estimating the length of its main track or tracks as equal to said proposed



length of road. And the Treasurer shall deduct the amount so apportioned to such company from said deposit, and return the remainder to the treasurer of such company.

*Chapter CCXIV.*

LOCATION AND CONSTRUCTION.

SECTION.

- 3460. What lands may be taken.
- 3461. Alteration of location.
- 3462. Where land is cut off from access to highway.
- 3463. Not to be laid out through cemetery.
- 3464. How lands may be taken.
- 3465. Damages, if road is never actually opened.
- 3466. Condemnation of easements, etc., reserved in a grant to the company.
- 3467. Owners may require a plan of land tak'n.
- 3468. Map of road to be filed with town clerk.
- 3469. Statement to be filed with Secretary.
- 3470. Payment of laborers.
- 3471. Crossing other roads.
- 3472. Contracts with connecting roads.
- 3473. Leases of railroads regulated.
- 3474. Record of conveyance or lease of interest in location.
- 3475. Certificate of assignment, etc., of interest in location, to be recorded.
- 3476. Crossing highways or water-courses.
- 3477. Appeals from order authorizing crossing of streams.
- 3478. Warning boards at grade crossings.
- 3479. Right of way, how obtained on altering highways.
- 3480. To be constructed so as not to cross highways at grade, etc.
- 3481. New highway crossing railroads, how constructed.

SECTION.

- 3482. Commissioners to direct as to structure of bridge over railroad.
- 3483. Alteration of highway crossed at grade.
- 3484. Taking of land for the purpose.
- 3485. Penalty for non-compliance.
- 3486. Change of highway dangerous from proximity to railroad newly located.
- 3487. Such highways when the railroad has been heretofore constructed.
- 3488. Repairs and maintenance of changed highway.
- 3489. Proceedings to secure safety of highway crossings.
- 3490. Assessment of damages.
- 3491. Appeal.
- 3492. Commissioners may forbid the use of certain tracks for switching purposes.
- 3493. May regulate the use of such tracks, on petition, etc.
- 3494. Penalty for non-compliance with order.
- 3495. Appeal from such order.
- 3496. General penalty in absence of special penalty.
- 3497. Forfeiture, how recovered.
- 3498. Commissioners may regulate the speed of cars at crossings, etc., general authority regarding crossings ; penalty.
- 3499. Guarding rails at grade crossings.
- 3500. Covered bridges, height of.

SEC. 3460. Every railroad company may lay out its road not exceeding six rods wide, and for the purpose of cuttings, embankments, and procuring stone and gravel, and for necessary turnouts, may take as much more real estate within the limits of its charter as may be necessary for the proper construction and security of the road ; but no real estate without the limits of said road shall be so taken without the permission of the parties interested therein, unless the Railroad Commissioners, on application of such company, and after notice to said parties, shall first prescribe the limits within which real estate shall be taken for said purposes, and no railroad shall lay out and finally locate its road without the written approbation of the location by said Commissioners; and any company may change the location of its road, or of any section or part thereof, either before or after such location has been approved by the Commissioners, provided such change is made before the construction of said road or of said section or part thereof

G. S. 1875, 321,  
§ 18.  
1883, ch. 131.  
Company may  
lay out road  
and take land,  
on payment of  
appraisal.

Commissioners  
shall prescribe  
limits.

has been commenced, and is made with the written approbation of said Commissioners; and *provided*, that all damages that may be occasioned to any person by the taking of any real estate for said purposes shall be paid for by said company as provided by law.

G. S. 1875, 321.  
§ 19.  
1882, ch. 140.  
Alteration of  
location.

SEC. 3461. Every railroad company, after its line of road shall have been located, approved, and established, may so far alter the location of such road as to change the radius of its curves, straighten and improve its lines, width, and extent of depot grounds, slopes, and embankments, and extend its lines of sight, when such changes are approved by the Railroad Commissioners, and may take lands for additional tracks, turnouts, and freight and passenger stations, and depots, also for the purpose of supplying water for the use of its engines and stations. A certificate of which changes or taking, duly signed by such Commissioners, shall be lodged for record in the town clerk's office in the town or towns in which such changes or taking is made.

Certificate of  
alteration to be  
recorded.

1893, ch. 262.  
Land for addi-  
tional tracks.

Any railroad company may so far alter the location of its road as to add to the number of its main tracks, and for that purpose, with the approval of the Railroad Commissioners, may take additional land in the manner now provided by law; but when an additional bridge over a navigable stream shall be required by an enlargement of the main tracks, the same shall be constructed in such manner, and of such materials, and with draws of such width for the passage of vessels, as the Railroad Commissioners shall authorize and direct, and such additional bridge shall be subject to the provisions of section 3503 of the general statutes.

Additional  
bridge over  
navigable  
stream.

1884, ch. 88.  
Where land is  
taken and other  
land is thereby  
cut off from  
practical access  
to the highway.

SEC. 3462. When any railroad company shall take land for railroad purposes, the effect of which is to cut off other land from practical access to the highway, said railroad may, with the approval of the Railroad Commissioners, take additional land, sufficient to procure a convenient way from the land so cut off to the highway, and shall provide for the use of the owner of the land cut off as aforesaid a suitable way over such additional land to the highway. Said way shall remain a private way for the use of the owner of the land cut off as aforesaid, and the city or town in which it is situated shall not be liable for its maintenance nor responsible for its defects. For the purposes of this section, lands may be acquired in the manner provided by law for the taking of land by railroad companies.

1881, ch. 154.  
Railroad not to  
be laid out

SEC. 3463. No railroad company shall lay out or locate its road, or any part thereof, through any ceme-

tery or any approach in common use from the highway thereto, and within one-quarter of a mile thereof, unless the Railroad Commissioners, when called upon to approve the proposed layout of said road, shall find that said cemetery, or the approach thereto, was located for the purpose of obstructing such layout, or unless said Commissioners shall unanimously approve such layout or location.

SEC. 3464. When any railroad company shall have the right to take real estate for railroad purposes, and cannot obtain it by agreement with the parties interested therein, it may apply to any judge of the Superior Court for the appointment of appraisers to estimate all damages that may arise to any person from the taking and occupation of such real estate for railroad purposes, and after reasonable notice of said application shall have been given to all parties in interest, such judge shall appoint three appraisers, who shall be sworn, and give reasonable notice to said parties in regard to the time and place of making such estimate, and shall view the premises and estimate such damage, but shall not include in such estimate the expense of erecting and maintaining fences along the line of such railroad; and shall return an appraisal of such damages in writing, under their hands, to the clerk of the Superior Court in the county where the estate lies, who shall record it; and when so returned and recorded, such appraisal shall have the effect of a judgment, and execution may issue at the end of sixty days from the time of such return, in favor of the persons respectively to whom damages may be appraised; and said appraisers shall be paid by said company for the time actually spent in making such appraisal and return; but no railroad shall be worked upon, or opened across any real estate, until the damages appraised to any person interested therein shall have been paid or secured to be paid to his satisfaction, or deposited with the treasurer of the county for his use.

through  
cemetery.

G. S. 1875, 321.  
§ 20.  
Land, how  
taken, ap-  
praisal, dam-  
ages, etc.  
21 Conn., 294.  
26 Conn., 249.

1889, ch. 149.  
Taking of land  
already occu-  
pied.

Any railroad company, owning a railroad which has been constructed and is being operated over land to which it has not acquired title, may take such land within the limits of its location, at any time within two years after the approval thereof by the Railroad Commissioners, by proceedings under section 3464 of the general statutes; *provided*, that nothing herein shall be construed to authorize the taking or using the track, wharves, depot, or depot grounds of any other company without its consent, except for the purpose of crossing or connection.

G. S. 1875, 322,  
§ 21.

Land owners to  
recover actual  
damages only,  
where road is  
discontinued  
before opened  
and worked.

SEC. 3465. When any real estate shall have been laid out for railroad purposes, and the damages shall have been appraised, and such road, or any part thereof, shall have been abandoned or discontinued before the same shall have been opened and worked, no such execution shall issue, nor shall an action be brought against said company for the recovery of such damages by any of the owners of land over which such road or part of a road shall have been laid out and discontinued as aforesaid; but any such owner may recover of such company the actual damage which he may have suffered in consequence of the laying out of the road, or for any unreasonable delay in opening and working the same.

1893, ch. 263.  
Elimination of  
private cross-  
ings and con-  
demnation of  
easements.

SECTION 1. The owner of any private crossing at grade of the tracks of a railroad company, or of any right, title, interest, easement, or privilege in land used by any railroad company for railroad purposes, or the directors of any railroad company whose land is incumbered by any such private crossing, right, title, interest, easement, or privilege, may bring a petition to the Railroad Commissioners for the elimination of such private crossing, and the condemnation of such right, title, interest, easement, or privilege, which petition shall be in writing, alleging that public safety requires the elimination of such incumbrance. The Railroad Commissioners shall thereupon appoint a time and place for hearing the petition, and shall give such notice thereof as they shall judge reasonable to the owner of said right, title, interest, easement, or privilege, to the railroad company, and to the owners of land adjoining the highway to be laid out, if any such highway is laid out, as hereinafter provided, to be used as a substitute for such private crossing. Upon the hearing of said petition, if public safety so requires, the commission shall authorize the railroad company to condemn such private crossing, right, title, interest, easement, or privilege, and thereupon the railroad company may proceed to condemn the same in the manner provided by law for the taking of lands by railroad companies. Upon the hearing of said petition, if the Railroad Commissioners shall be of opinion that public convenience and necessity require a highway on account of the elimination of said private rights in the land of the railroad company, they may lay out a highway sufficient to satisfy public convenience; but such new highway shall not be laid out if the land of a private owner, with which the incumbrance is associated,



is already connected with a public highway. If the Railroad Commissioners shall order a new highway, as hereinbefore set forth, they shall assess the expenses of making the same, including the damages to any person whose land is taken, proportionally upon the person and parties especially benefited thereby, but at least one-half of such expense shall be paid by the railroad company.

SEC. 2. The Commissioners may order the elimination of any private crossing at grade, as aforesaid, by the substitution of an overhead or underneath crossing, in which case the expense of making such change, including land damages, shall be paid by the railroad company. Substitution of crossings.

SEC. 3. Any person aggrieved by any order or judgment of the Railroad Commissioners, under this act, may appeal from such order or judgment to the Superior Court for the county in which the land lies, in the manner and with like effect that appeals are taken from the orders of Railroad Commissioners under section 3518 of the general statutes. Appeal from commissioners.

SEC. 4. Section 3466 of the general statutes, Chapter CXLVIII, and Chapter CCLII of the public acts of 1889 are hereby repealed. Repeal.

SEC. 3467. When any railroad company shall take any property for the purpose of its railroad, the owner of such property may at any time within three years thereafter demand in writing of the treasurer of the company a written description of such property so taken, and said company shall within thirty days deliver to him such description; and if it fail to do so, all its rights to enter upon or use said property, except for making surveys, shall be suspended until it shall have so delivered such description. G. S. 1875, 322, § 22. Owners may require a plan of land taken.

SEC. 3468. Within ninety days after the railroad of any company shall have been laid out in any town and approved by the Railroad Commissioners, such company shall deposit with the town clerk a correct plan, signed by its president, of so much of said railroad as lies in said town, drawn on a scale of at least five inches to the mile, upon which shall be accurately delineated the direction and length of each course, and the width of the land taken. G. S. 1875, 322, § 23. Corporation to deposit plan of road with town clerk.

SEC. 3469. Every railroad company shall, within six months after the final location of its road, file a statement of such location, defining the courses and distances, with the Secretary of the State. G. S. 1875, 322, § 24. Location of road to be filed in Secretary's office.

G. S. 1875, 322,  
§ 25.  
Security from  
contractors for  
paying laborers;  
liability of com-  
pany therefor.

SEC. 3470. Every railroad company, in making contracts for the building of its road, shall require sufficient security from the contractors for the payment of all labor thereafter performed in constructing the road by persons in their employ; and the company shall be liable to the laborers employed for labor actually performed on the road, if they, within twenty days after the completion of such labor, shall, in writing, notify its treasurer that they have not been paid by the contractors.

1882, ch. 138.  
1883, ch. 130.  
Crossing of one  
railroad by  
another.

SEC. 3471. Any railroad company may, in the construction of its railroad, cross the railroad of any other company, or connect with the same; and if it cannot agree with such other railroad company, or the managers thereof, as to such crossing or connection, the Railroad Commissioners may determine the place and manner of such crossing or connection, after reasonable notice to the several companies in interest to appear and be heard in relation to the matters contained in such notices, and may make such orders as to bridges, abutments, piers, tunnels, arches, excavations, retaining walls, embankments, and approaches as they shall judge necessary; but no railroad shall cross any other railroad at grade, except for the purpose of connecting therewith, when the avoidance of a grade crossing is practicable, and the Railroad Commissioners shall be judges of the question of practicability.

1893, ch. 208.  
Electric, etc.,  
and steam rail-  
road crossings.

Chapter CXLVIII of the public acts of 1889 is hereby amended to read as follows: No electric, cable, or horse railroad shall hereafter be constructed across the tracks of a steam railroad at grade, except upon application to and approval by the Railroad Commissioners, nor shall any steam railroad cross any such electric, cable, or horse railroad at grade, except upon like application and approval.

G. S. 1875, 323  
§ 27.  
Contracts with  
connecting or  
intersecting  
roads.

SEC. 3472. Any railroad company may make lawful contracts with any other railroad company with whose railway its tracks may connect or intersect in relation to its business or property, and may take a lease of the property or franchises of, or lease its property or franchises to, any such railway company.

1889, ch. 166.  
Railroad com-  
pany may build  
branch, when.

SEC. 1. Any railroad company in this State may build branches from its main line or from any of its leased lines; *provided*, that the construction of such branch is found by a judge of the Superior Court, upon due application after such reasonable public notice as such judge may order, to be of public necessity and convenience.

SEC. 2. For the purpose of paying the cost of building any such branch, said railroad company may issue bonds secured by mortgage to the amount of one-half of said cost, to be verified in the manner now provided by law for verifying the cost of a railroad for the purpose of issuing bonds. Issue of bonds therefor.

SEC. 3. So much of section 3472 of the general statutes as relates to the construction of branches by railroad companies is hereby repealed. Repeal.

SEC. 4. This act shall be deemed to be an addition to, and amendment of, all charters of railroad companies, and shall repeal all limitations in any charter as to the length of branches which it may build. Effect of this act on railroad charters.

SEC. 3473. No lease of any railroad made after April 25, 1878, shall be binding on either of the contracting parties for a period of more than twelve months, unless approved by the stockholders of the company or companies that are parties to the lease, by a vote of two-thirds of the stock represented in person or by proxy, at a meeting of the stockholders called for that purpose, and at least one month's notice given of such meeting by advertising twice a week for four weeks in a daily paper published in the State, and also by mailing a copy of the call and of the lease to each stockholder; and said notice and call shall state that at the meeting the lease will be submitted for the approval of the stockholders. 1878, ch. 65. Leases of railroads regulated.

SEC. 3474. All conveyances by any railroad company, or its assigns, of any interest in the location of its railroad, to be used or enjoyed for railroad purposes, may, and if in the nature of a lease, whether now in force or hereafter executed, for a term exceeding one year, shall be recorded by the grantee or lessee in the office of the Secretary of the State. 1887, ch. 76. Record of conveyance or lease of interest in location.

SEC. 3475. Certificates of the assignment, release, or foreclosure of any interest or lien in or upon the location of any railroads, acquired under any such conveyance as specified in the preceding section, or by virtue of the general laws of the State, may be recorded in like manner, and with the same effect. 1887, ch. 76. Certificate of assignment, release, or foreclosure, may be recorded.

SECTION 1. In any contract for the sale of railroad or street railway equipment, or rolling stock, it shall be lawful to agree that the title to the property sold, or contracted to be sold, although possession thereof may be delivered immediately or at any time or times subsequently, shall not vest in the purchaser until the pur- 1893, ch. 119. Sale of equipment.

chase price shall be fully paid, or that the seller shall have and retain a lien thereon for the unpaid purchase money. And in any contract for the leasing or hiring of such property it shall be lawful to stipulate for a conditional sale thereof at the termination of such contract, and that the rentals or amounts to be received under such contract may, as paid, be applied and treated as purchase money, and that the title to the property shall not vest in the lessee or bailee until the purchase price shall have been paid in full, and until the terms of the contract shall have been fully performed, notwithstanding delivery to and possession by such lessee or bailee; *provided*, that no such contract hereafter made shall be valid as against any subsequent attaching creditor, or any subsequent *bona fide* purchaser, for value and without notice, unless the same shall be evidenced by an instrument executed and duly acknowledged by the parties thereto before some person authorized by law to take acknowledgment of deeds, and in the same manner as deeds are acknowledged, and duly recorded in the office of the Secretary of this State, nor unless each locomotive engine or car, so sold, leased, or hired, or contracted to be sold, leased, or hired, as aforesaid, shall have the name of the vendor, lessor, or bailor plainly marked on each side thereof, followed by the word "owner," or "lessor," or "bailor," as the case may be.

Contracts, when recorded.

SEC. 2. The contracts herein authorized shall be recorded by the Secretary of this State in a book of records to be kept for that purpose. And on payment in full of the purchase money, and the performance of the terms and conditions stipulated in any such contract, a declaration in writing to that effect, or a proper quit-claim deed, shall be made, executed, and acknowledged by the vendor, lessor, or bailor, or his or its assignee, and recorded in the office of the Secretary of this State. And for such services the Secretary shall be entitled to receive the same fees as in the cases of railroad mortgages.

Contract heretofore made not affected.

SEC. 3. This act shall not be held to invalidate or affect in any way any contract heretofore made of the kind referred to in the first section hereof, and any such contract heretofore made may, upon compliance with the provisions of this act, be recorded as herein provided.

G. S. 1875, 323,  
§ 28.  
Crossing high-

SEC. 3476. When it shall be necessary for the construction of a railroad to intersect or cross any water-



course not navigable, or any public highway, the railroad company may construct said railroad across or upon the same if the Railroad Commissioners shall judge it necessary; but said company shall restore said water-course or highway thus intersected to its former state, or in a sufficient manner not to impair its usefulness; and in case any highway is so located that said railroad cannot be judiciously constructed across or upon the same without interfering therewith, said company may, with the consent of said Commissioners, cause such highway to be changed or altered, so that said railroad may be made on the best site for that purpose; but said company shall put such highway in as good situation and repair as it was previous to such alteration under the direction of said Commissioners, whose determination thereon shall be final.

SEC. 3477. When any railroad company shall be authorized by the Railroad Commissioners to cross any stream of water, or water-course, not navigable, or pond of water, an appeal shall be allowed to any interested person aggrieved by such permission, to any judge of the Superior Court, within twenty days after the owners of the land adjoining said stream, at the point of said crossing, shall have had actual notice of the manner in which said Commissioners have permitted said stream to be crossed; which appeal shall be by a suitable petition, in writing, for a hearing in regard to the crossing, with a citation attached thereto, returnable within twelve days after its date, and served at least five days before the return day, upon such company. And said judge shall have, for the purpose of disposing of said appeal, all the powers of the Superior Court, and may proceed, by himself, or by committee, to a hearing in regard to the propriety of said manner of crossing; and may render a decree either establishing more and sufficient waterway at the place of crossing, or providing such method of crossing that the usefulness and safety of said stream may be preserved, and that the safety of the public may not be endangered; or may confirm said mode of crossing; and if said alteration is so decreed may award costs against said company; and if said mode of crossing is confirmed, may award costs against the appellants, and may issue execution in favor of either party for costs to be taxed as in civil actions in court. Said appeal shall be a *supersedeas*, so far as said crossing is concerned, until judgment shall be rendered thereon by said judge.

ways or water-courses.  
27 Conn., 146.

G. S. 1875, 323,  
§ 29.  
Appeals from  
order authorizing the crossing  
of non-navigable streams.

Award of costs.

SEC. 3478. Every railroad company shall keep and maintain at each crossing at grade of any highway, at

G. S. 1875, 324,  
§ 31.  
Warning boards

at grade crossings.

G. S. 1875, 324,  
§ 32.  
Right of way  
for highways  
for railroads,  
how obtained.

1883, ch. 107.  
Railroads to be  
constructed so  
as not to cross  
highways at  
grade, etc.  
39 Conn., 128.  
54 Conn., 574.

1883, ch. 107.  
New highway  
crossing rail-  
road, how con-  
structed.  
55 Conn., 19.

Expense, how  
defrayed.

which there is no gate, warning boards of such a description as the Railroad Commissioners may approve.

SEC. 3479. When any highway or street shall be changed or altered by any railroad company with the consent of the Railroad Commissioners, and it shall be necessary to take any land for a highway to which such company has not obtained title, and over which neither said company nor the town in which such change shall be made has any right of way, and said company is unable to agree with the owner thereof in regard to the amount of damages to be paid therefor, the same proceedings shall be had for the purpose of procuring the required right of way as are provided by law in regard to taking land for railroad purposes.

SEC. 3480. Every railroad company which may locate and construct a railroad across any turnpike, highway, or public street, shall construct it so as to cross over or under the same; and may, under the direction of the Railroad Commissioners, raise or lower the same at said crossing, or change the location thereof; and shall make and maintain such bridges, abutments, tunnels, arches, excavations, embankments, and approaches, as the Railroad Commissioners shall order, and the convenience and safety of the public travel upon said turnpike, highway, or street may require; but the Railroad Commissioners may, upon due notice to said company and to the selectmen of the town or mayor of the city in which said crossing is situated, direct such company or trustee to construct its railroad at such crossing upon a level with the turnpike, highway, or street; but no such direction shall be given in any case, except for special reasons which shall be recorded in the records of the Railroad Commissioners.

SEC. 3481. When a new highway or a new portion of a highway shall hereafter be constructed across a railroad, such highway or portion of highway shall pass over or under the railroad, as the Railroad Commissioners shall direct. The railroad company operating such railroad shall construct such crossing to the approval of the Railroad Commissioners, and may take land for the purposes of this section in the manner provided by law for the taking of lands by railroad companies. One-half the expense of such crossing shall be borne by the company constructing the same, and one-half thereof shall be paid to said company by the town, city, or borough which constructs such highway or portion of highway. If said highway shall cross over said railroad, the structure necessary therefor shall be maintained and

kept in repair by the party bound to maintain said highway; but if it shall cross under said railroad, such structure shall be maintained and kept in repair by said company.

SEC. 3482. When a highway, or portion of a highway, has been or shall be laid out or ordered to be laid out across a railroad, and the Railroad Commissioners shall direct such highway to be carried over the railroad, they shall determine the length, width, and material of the bridge over the railroad before the damages that may be occasioned to any person by the taking of land for such highway are finally assessed; and said Commissioners may require such bridge to extend beyond the railroad crossed by it, but in cases pending June first, 1887, said Commissioners may determine the length, width, and material of such bridge at any stage of the proceedings.

1887, ch. 63.  
Railroad Commissioners to direct as to structure of bridge over railroad.

SEC. 1. The selectmen of any town, the mayor and common council of any city, the warden and burgesses of any borough within which a highway crosses or is crossed by a railroad, or the directors of any railroad company whose road crosses or is crossed by a highway, may bring their petition in writing to the Railroad Commissioners, therein alleging that public safety requires an alteration in such crossing, its approaches, the method of crossing, the location of the highway or crossing, the closing of a highway crossing and the substitution of another therefor, not at grade, or the removal of obstructions to the sight at such crossing, and praying that the same may be ordered; whereupon the Railroad Commissioners shall appoint a time and place for hearing the petition, and shall give such notice thereof as they judge reasonable to said petitioner, the railroad company, the municipalities in which such crossing is situated, and to the owners of the land adjoining such crossing and adjoining that part of the highway to be changed in grade; and after such notice and hearing, said Commissioners shall determine what alterations, changes, or removals, if any, shall be made and by whom done; and if the aforesaid petition is brought by the directors of any railroad company, or in behalf of any railroad company, they shall order the expense of such alterations or removals, including the damages to any person whose land is taken, and the special damages which the owner of any land adjoining the public highway shall sustain by reason of any change in the grade of such highway, in consequence of any change,

1889, ch. 220.  
Proceedings on petition for abolition of railroad grade crossings.

alteration, or removal ordered under the authority of this act, to be paid by the railroad company owning or operating the railroad in whose behalf the petition is brought, and in case said petition is brought by the selectmen of any town, the mayor and common council of any city, or the warden and burgesses of any borough, they may, if the highway affected by said determination was in existence when the railroad was constructed over it at grade, or if the layout of the highway was changed for the benefit of the railroad after the layout of the railroad, order an amount not exceeding one-quarter of the whole expense of such alteration, change, or removal, including the damages, as aforesaid, to be paid by the town, city, or borough in whose behalf the petition is brought, and the remainder of the expense shall be paid by the railroad company owning or operating the road which crosses such public highway; if, however, the highway affected by such order, last mentioned, has been constructed since the railroad which it crosses at grade, the Railroad Commissioners may order an amount not exceeding one-half of the whole expense of such alteration, change, or removal, including the damages, as aforesaid, to be paid by the town, city, or borough in whose behalf the application is brought, and the remainder of the expense shall be paid by the railroad company owning or operating the road which crosses such public highway. The directors of every railroad company which operates a railroad in this State shall remove or apply for the removal of at least one grade crossing each year for every sixty miles of road operated by it in this State, which crossings, so to be removed, shall be those which in the opinion of said directors are among the most dangerous ones upon the lines operated by it, and if the directors of any railroad company fail so to do, the Railroad Commissioners shall, if in their opinion the financial condition of the company will warrant, order such crossing or crossings removed as in their opinion the said directors should have applied for the removal of under the above provisions, and the Railroad Commissioners in so doing shall proceed in all respects as to method of procedure and assessment of expense as if the said directors had voluntarily applied therefor.

Proceedings by  
Railroad Com-  
missioners in  
absence of  
application.

SEC. 2. The Railroad Commissioners may in the absence of any application therefor, when in their own opinion public safety requires an alteration in any highway or highways crossed at grade by a railroad or by railroads belonging to or operated by more than one



company, after a hearing had upon such notice as they shall deem reasonable to the railroad company or companies owning or operating said railroad or railroads, and to the selectmen of the town, mayor of the city, or warden of the borough within which said highway or highways are situated, and to the owners of the land adjoining said crossing, order such alterations in such highway or highways as they shall deem best, and shall determine and direct by whom such alterations shall be made, at whose expense, and within what time; *provided*, that in all cases arising under this section one-fourth of the expense, including damages and special damages, as aforesaid, shall be paid by the State and the remainder shall be assessed upon the railroad company or companies benefited by such order; *and provided*, that such alterations as are thus made at the primary instance of the Railroad Commissioners shall not be ordered so as to direct the construction of more than one bridge in any one year on any one railroad.

SEC. 3. Railroad companies may take land for the purpose of this act in the manner provided by law for the taking of lands by railroad companies. Taking of land for the purpose.

SEC. 4. Whenever the Railroad Commissioners, upon an application brought under the provisions of section one of this act, shall find that any highway crosses or is crossed by the tracks of more than one railroad, and the tracks of such railroads are so near together that public convenience requires the work of separating the grades to be done under and in compliance with one order, they shall give notice to all the companies operating said railroads to appear before them and be heard upon the application, and after such notice and hearing said Commissioners shall determine what alterations shall be made, if any, so as to separate the grades of all of said crossings at the same time, and they shall determine by whom such work shall be done, and they shall apportion the expense to be borne by the railroad companies between such companies in such manner as they, the said Commissioners, shall deem proper. When tracks of more than one railroad cross a highway.

SEC. 5. Damages under the provisions of this act on account of any change of grade in highways shall be assessed in the same manner as in the case of land taken for railroad purposes; and the provisions of this act in relation to such damages for change of grade shall apply in the case of any order passed by the Railroad Commissioners or Superior Court since June 1, 1887, under the authority conferred by section 3489 of the general statutes. Damages, how assessed.

Appeals.

SEC. 6. The provisions of section 3491 of the general statutes in relation to appeals shall apply to any decision of the Railroad Commissioners under the authority of this act.

1893, ch. 244.  
Repairs, who  
bound to make.

SECTION 1. Section seven of Chapter CCXX of the public acts of 1889 is hereby amended to read as follows: It shall be the duty of railroad companies to maintain and keep in repair all structures heretofore or hereafter erected over their tracks at any highway crossing, and the approaches to the crossings when the same are made with plank surface, and also to keep in repair the surface of the highway, including the planking or other surface material of the highway upon such structure, and it shall be the duty of the municipality where such bridge or bridges are located to notify any agent of the railroad company owning such bridge or bridges or structure of any defect in the same, and such notice shall be in writing.

Repeal.

SEC. 2. All acts or parts of acts inconsistent herewith are hereby repealed.

SEC. 3. This act shall take effect upon its passage.

Pending  
applications.

SEC. 8. The provisions of this act shall apply to any cause or application now pending before the Railroad Commissioners or Superior Court. All provisions of the general statutes which relate to sections 3483 and 3489 of the same shall be deemed to apply to the provisions of this act.

Repeal.

SEC. 9. Sections 3483 and 3489 of the general statutes are hereby repealed, but no rights, duties, or obligations belonging to or imposed upon any parties by any judgments heretofore rendered, shall be impaired or altered by such repeal.

1884, ch. 100.  
Alterations of  
highway  
crossed at  
grade.  
53 Conn., 367.

[The following section is repealed by Chapter 220, Sec. 9, Acts of 1889: SEC. 3483. The Railroad Commissioners may, when in their opinion public safety requires an alteration of any highway crossed at grade by a railroad, after a hearing had upon such notice as they shall deem reasonable to the railroad company owning or operating said railroad, and to the selectmen of the town, mayor of the city, or warden of the borough within which said highway is situated, and to the owners of the land adjoining said crossing, order such alterations in such highway as they shall deem best, and shall determine and direct by whom such alterations shall be made, at whose expense, and within what time; provided, that in no case shall more than one-half the expense be paid by the town, city, or borough aforesaid; and provided, that such alterations as are made at the primary instance of the Railroad Commissioners shall not be ordered at the rate of more than one a year on any one railroad, except in the case of railroads having a

double track throughout their entire length. Railroad companies may take land for the purposes of this section, in the manner provided by law for the taking of lands by railroad companies.]

The decision of the Railroad Commissioners rendered in any proceeding under section 3483 of the general statutes shall be communicated within twenty days after final hearing, to all parties to whom notice of the hearing had on said proceeding was given; and any person aggrieved by such decision, who was a party to said proceeding, may appeal therefrom in the same manner, and with like effect, as is provided in the case of appeals from any order of the Railroad Commissioners, upon any proceeding relative to the location, abandonment, or changing of depots or stations.

1889, ch. 217.  
Notice of decision of R. R. Commissioners as to grade crossings, and appeals from such decision.

SECTION 1. The sums of money assessed by any orders of the Railroad Commissioners, or the Superior Court, upon appeal from such orders, against any town or city in this State, where the applications were brought by the directors of any railroad company since May 1, 1885, for the removal of grade crossings in the cases of highways which were in existence before the construction of the railroad, shall be reimbursed by the State to such towns or cities. Towns or cities entitled to reimbursement under the provisions of this act shall present their claims to the Comptroller, and proofs and proper certificates to his satisfaction from the Board of Railroad Commissioners; and the Comptroller shall thereupon draw his order on the Treasurer in favor of such towns or cities, respectively, for the amounts to which he shall find the towns or cities to be entitled under the provisions of this act.

1893, ch. 252.  
Town or cities to be reimbursed for assessments for removal of grade crossings.

SEC. 2. This act shall take effect upon its passage.

SEC. 3484. No lands shall be taken by any railroad company for the purpose mentioned in the preceding section, except such as are necessary, which necessity shall be certified by the Railroad Commissioners; but no such taking need be based upon any special finding that public necessity and convenience require such taking.

1883, ch. 107.  
Taking of land for the purpose.

SEC. 3485. Every railroad company which shall fail to comply with any provision of sections 3480, 3481, 3483, and 3484, shall forfeit to the town in which such crossing is situated, one hundred dollars for each and every month of such non-compliance. In each and every instance of such non-compliance the Railroad Commissioners shall give notice of all such forfeitures to said town, which shall collect the same.

1884, ch. 100.  
Penalty for non-compliance.

1884, ch. 106.  
Change of high-  
way dangerous  
from proximity  
to railroad  
newly located.

SEC. 3486. When a railroad has been laid out or located so near to a highway and in the same general direction as, in the opinion of the selectmen of any town, warden of any borough, or mayor of any city, within which the said highway is situated, to endanger public travel, the said selectmen, warden, or mayor may bring their petition to the Railroad Commissioners, setting forth the same; and the said Commissioners, after reasonable notice to the railroad company to appear and be heard in relation thereto, shall, if in their opinion public safety so requires, and a change of the location of such highway is practicable, forthwith order said railroad company to make said change, in such manner as the Commissioners may determine; and such change, including the cost of fencing such re-located highway, shall be done at the expense of said railroad company.

1884, ch. 106.  
Such highways  
when the rail-  
road has been  
heretofore con-  
structed.

SEC. 3487. In case any railroad has been heretofore constructed so near any highway in any town, city, or borough, as, in the opinion of the selectmen, mayor, or warden of such town, city, or borough respectively, to endanger public travel, said selectmen, mayor, or warden may bring their petition to the Railroad Commissioners, who shall inquire into the facts, and, if in their judgment public safety so requires, may order the location of said highway to be changed, and determine by whom the work shall be done, and the expense of such change, including the cost of fencing, shall be paid equally by said town, city, or borough, and said railroad company.

1884, ch. 106.  
Repairs and  
maintenance of  
changed high-  
way.

SEC. 3488. When the Railroad Commissioners, in accepting the layout of any railroad company, have in such acceptance provided that portions of such railroad should not be constructed until certain highways should be re-located, changed, or altered by such railroad company, and the obligation of repairing or maintaining the whole or any part of such highways devolves by law upon any person or corporation other than the town, city, or borough within which such highway may be located, such provision of said Commissioners shall be binding upon said railroad company, and it shall be the duty of said railroad company to maintain and repair said highway so re-located, altered, or changed, in the same manner and to the same extent that such other person or corporation was bound to repair and maintain the same before such re-location, change, or alteration. For the purposes of this and the two preceding sections, land may be acquired in the manner provided by law for the taking of land by railroad companies. Any such rail-



road company may use the material and abutments of any existing bridge; in the old highway, in the construction of a bridge in the substituted highway, and shall provide suitable temporary accommodations for public travel over the old highway until the new highway is completed, and shall be solely responsible for injuries resulting from its negligence in the matter of such temporary accommodations. The selectmen of any such town are hereby authorized to discontinue such parts of the old highway as in their judgment are not of common convenience and necessity.

[The following section is repealed by Chapter 220, Sec. 9, Acts of 1889: SEC. 3489. The selectmen of any town, the mayor and common council of any city, the warden and burgesses of any borough, within which a highway crosses or is crossed by a railroad, or the directors of any railroad company whose road crosses or is crossed by a highway, may bring their petition in writing to the Railroad Commissioners, therein alleging that public safety requires an alteration in such crossing, its approaches, the method of crossing, the location of the highway or railroad, or the removal of obstructions to the sight at such crossing, and praying that the same be ordered. Whereupon the Railroad Commissioners shall appoint a time and place for hearing the petition, and shall give such notice thereof as they judge reasonable, to said petitioner, the railroad company, and to the owners of the land adjoining such crossing, and after such notice and hearing said Commissioners shall determine what alterations or removals shall be made, by whom done, and at whose expense.]

1876, ch. 36.  
1877, ch. 8.  
Proceedings to  
secure safety of  
highway at  
railroad cross-  
ings.

SEC. 3490. In case the party by whom the changes are to be made cannot agree with the owner of the land or other property to be removed or taken under the said decision of the Railroad Commissioners, the damages shall be assessed in the same manner as is provided in case of land taken by railroad companies, the expense of such assessment to be paid in the same manner as the expense of the alterations.

1876, ch. 36.  
Assessment of  
damages.

SEC. 3491. The decision of the Commissioners shall be communicated to the petitioners, to the railroad company, and to the owners of any property directed to be removed or taken, within twenty days after final hearing, and any person aggrieved by such decision may appeal therefrom in the same manner and with like effect as is provided in the case of appeals from any order of the Railroad Commissioners upon any proceedings relative to the location, abandonment, or changing of depots or stations.

1876, ch. 36.  
1877, ch. 8.  
Appeal.

SEC. 3492. The Railroad Commissioners are empowered and authorized to order any railroad company not to use for switching purposes, nor for standing trains of any kind, such portion of its tracks upon or across any

1884, ch. 100.  
Commissioners  
may forbid the  
use of certain  
tracks for  
switching pur-  
poses, etc.

public street or highway as in their opinion the public convenience requires should not be so used, and may limit the number of tracks, other than main tracks, which a railroad company may lay upon or across a public street or highway for side tracks or for switching purposes, and may order a railroad company to remove such of the side tracks or switching tracks now laid upon or across any public street or highway as said Commissioners may deem public convenience or safety requires should be removed.

1884, ch. 100.  
Upon petition,  
etc., commis-  
sioners may  
make orders  
regulating the  
use of tracks  
for switching.

SEC. 3493. Said Commissioners, when requested in writing by the selectmen of any town, the mayor and common council of any city, or the warden and burgesses of any borough, to forbid the use for switching purposes of the tracks of any railroad company where the same cross any public street or highway within said town, city, or borough, shall visit such crossing, first giving reasonable notice to the authorities making such request, and, if public convenience requires, shall order the company operating said railroad not to use the same or such part thereof as may be specified in said order for switching purposes, and may make any order regulating such switching that they shall deem proper, and, upon like application and notice, shall make such orders in regard to the laying of railroad tracks for side tracks or for switching purposes upon or across such streets or highways, or for the removal of such tracks already laid, as they may judge proper. Said Commissioners may change any such order when they deem it necessary, first visiting said town, city, or borough, and giving the authorities thereof an opportunity to be heard thereon.

1884, ch. 100.  
Penalty for non-  
compliance  
with order.

SEC. 3494. Any railroad company neglecting or refusing to obey any order of the Railroad Commissioners provided for in the two preceding sections, shall forfeit to the town in which such crossing is situated, one hundred dollars for each and every month of such non-compliance.

1884, ch. 100.  
Appeals from  
such order.

SEC. 3495. When said Commissioners, on application as prescribed in section 3493, shall make an order as provided therein, or refuse to make the same, their decision shall be communicated to the parties in interest within twenty days from the final hearing on the same, and either party aggrieved by such decision may appeal therefrom to the Superior Court in the manner and with the like effect as provided for appeals in section 3518, and the Superior Court may, at any time, upon application of either party, with due notice to adverse parties, amend or change any order passed as aforesaid.

SEC. 3496. When any railroad company shall fail to comply with any order of the Railroad Commissioners regarding any highway crossing, or any order of said Commissioners made in pursuance of the laws of this State, for which failure no other penalty is provided, said railroad company shall forfeit to the town within which is situated that portion of the railroad in reference to which the order is made, the sum of one hundred dollars for every such failure, to be recovered in an action to be brought within sixty days after the right of action shall accrue.

1884, ch. 53.  
General penalty  
in absence of  
special penalty.

SEC. 3497. All forfeitures, not otherwise provided for, accruing to the State from any railroad company by reason of any neglect or refusal to comply with the orders of the Railroad Commissioners, shall be recovered by the Treasurer of the State in an action upon the respective statutes providing for such forfeitures.

1884, ch. 53.  
Forfeitures  
how recovered.

SEC. 3498. The Railroad Commissioners are empowered to make orders for the regulation of the speed at which railroad locomotives and cars shall cross streets and highways; and orders regulating the obstruction of streets and highways by railroad locomotives and cars; and generally to make any and all orders regarding the crossing of streets and highways by railroad locomotives and cars, that the public may be inconvenienced as little as possible thereby. Every railroad company which shall violate any such order, shall forfeit to the State fifty dollars for each day of such violation.

1883, ch. 106.  
Commissioners  
may regulate  
the speed of cars  
at crossings,  
etc.; general  
authority re-  
garding cross-  
ings.

Penalty.

SEC. 3499. When any railroad is crossed by a highway on a level therewith, the company operating said railroad shall, at its own expense, so guard or protect its rails by plank, timber, or otherwise as to secure a safe and easy passage across its road. And if the selectmen of any town, the mayor of any city, or the warden of any borough shall represent in writing to the Railroad Commissioners that any company has failed to comply with the requirements of this section in regard to any highway within their town, city, or borough respectively, said Commissioners shall examine said crossing and make such order as they may deem necessary to carry out the provisions of this section.

1884, ch. 35.  
Guarding rails  
at grade cross-  
ings.

SEC. 3500. All covered bridges constructed on the line of any railroad shall not be less than eighteen feet in height from the top surface of the rail laid in the track on the bridge to the underside of the crossbeams overhead.

G. S. 1875, 324,  
§ 33.  
Covered  
bridges, height  
of.

## Chapter CCXV.

## RAILROAD BRIDGES AND BRIDGE GUARDS.

## SECTION.

3501. Railroad companies to erect bridge guards.

3502. Penalty for neglect.

3503. Footways upon railroad bridges.

3504. Cattle-guards.

3505. Fences.

3506. Commissioners may make orders relative to fences.

3507. Penalty for neglect.

1878, ch. 101.  
Railroad companies to erect bridge guards.1878, ch. 101.  
Penalty for neglect.G. S. 1875, 324,  
§ 34.

Footways upon railroad bridges.

## SECTION.

3508. When duty of adjoining owner is neglected.

3509. When fence is to be maintained jointly.

3510. Roads operated by trustees.

3511. State's Attorney to complain, if company neglect to repair highway.

3512. Taking land to make changes recommended.

SEC. 3501. Every railroad company shall, if required by the Railroad Commissioners, erect and thereafter maintain suitable bridge guards at every bridge over its railroad less than eighteen feet in height above the tracks; such bridge guards to be approved by the Railroad Commissioners, and to be erected and adjusted to their satisfaction.

SEC. 3502. Every railroad company refusing or neglecting to comply with the provisions of the preceding section shall, for each month of continuance in such refusal or neglect, forfeit and pay to any person who shall sue therefor, the sum of fifty dollars.

SEC. 3503. When, in the opinion of the selectmen of any town, or of the common council of any city, a footway upon the line of any railroad bridge or causeway within the limits of such town or city would be of public convenience, and the railroad company owning such bridge or causeway shall not consent thereto, such selectmen or common council may call out the Railroad Commissioners, who, after due notice to such company, shall inquire into the facts, at the expense of such town or city. And if said Commissioners shall find that a footway along such bridge or causeway would be of public convenience, they shall authorize such town or city to construct or maintain the same at their own expense, and to attach the same for support to such bridge or causeway; *provided*, such footway be constructed entirely outside of the bridge or causeway to which it is attached, and so constructed, used, and maintained as not to interfere with the necessary and proper use of such bridge or causeway of such company.

## FENCES.

G. S. 1875, 326,  
§ 45.  
Cattle-guards,  
27 Conn., 479.

SEC. 3504. Every railroad company shall construct suitable cattle-guards and fences therefrom at all crossings of passways or highways, to prevent cattle from



passing upon its railroad, except when the Railroad Commissioners deem it unnecessary.

SEC. 3505. Every railroad company shall erect and maintain fences on the sides of the railroads operated by it at such place or places as the Railroad Commissioners shall direct; and every railroad company operating any railroad constructed under any act of incorporation passed since the first Wednesday of May, 1850, or hereafter constructed, shall cause sufficient fences to be erected and maintained on the sides of such railroads, except at such place or places as the Railroad Commissioners shall adjudge them unnecessary; such fences to be erected by all companies hereafter organized, within twelve months after they enter upon and take possession of the lands through which their railroads pass.

1881, ch. 66.  
Fencing of railroads.

Section 3506 of the general statutes is hereby amended to read as follows : Said Commissioners shall make special investigation as to the necessary condition of the fences on the line of any railroad, when so requested in writing, and when deemed necessary shall issue their order directing the company operating said railroad to erect or repair said fences. Said order shall specify the place or places, the manner in which and the time within which the fence is to be erected or repaired, which order shall be served upon said company by some indifferent person by leaving with its secretary, or at his usual place of abode, a true and attested copy thereof within six days from its date, or by depositing within said time such copy, postage paid, in the post-office for transmission by registered letter, addressed to such secretary, at his office.

1893, ch. 210.  
Commissioners may make orders relative to fences.

SEC. 3507. If any railroad company shall neglect to comply with any such order it shall forfeit to the State one hundred dollars per month for each and every month of such neglect. The Railroad Commissioners shall give notice of all such forfeitures to the State Treasurer, who shall collect the same. And any person who, without neglect on his part, shall suffer damage by reason of the neglect of any railroad company to erect or maintain fences as required by law, may recover such damage from such company.

1881, ch. 66.  
Penalty for neglect.

SEC. 3508. When it shall be the duty of the owner of land adjoining any railroad to erect or maintain a fence between said land and said railroad, and such owner shall have unduly neglected to erect or maintain the same, and it shall have been erected or maintained by the railroad company in conformity to the order of the Railroad Commissioners, said company may collect the

1881, ch. 66.  
When the duty of owner of adjoining land to maintain fence is neglected.

cost of erecting and maintaining such fence from such owner. Such cost shall be a lien in favor of such company on said land, and it shall take precedence of every other lien or incumbrance on said land, and may be foreclosed in the same manner as a mortgage lien, but shall not continue in force unless said company shall, within sixty days after the completion of said fence, lodge a certificate with the town clerk of the town in which said land is situated, describing said land and specifying the amount claimed as a lien thereon, and the dates of the commencement and completion of said fence, which certificate shall be recorded by said town clerk on the land records of said town.

1881, ch. 66.  
When fence is  
to be main-  
tained jointly.

SEC. 3509. When by contract neither the owner of such land nor the railroad company can oblige the other to erect or maintain the fence, or such owner or his grantor has agreed not to require the railroad company to erect or maintain such fence, and the same shall have been so erected or maintained by any company by order of the Railroad Commissioners as aforesaid, said railroad company may collect one-half of the cost of erecting and maintaining the same from such owner, and the same shall be a lien on the lands of such owner as provided in the preceding section.

1886, ch. 77.  
Use of barbed  
wire regulated.

SEC. 2274. No barbed wire shall be used within five feet of the ground along any sidewalk or public highway, without the written consent of a majority of the selectmen of the town, the members of the common council of the city, or the warden and burgesses of the borough in which such sidewalk or highway is situated.

1889, chap. 126.  
Barbed wire not  
to be used on  
fences between  
adjoining prop-  
rietors.

SECTION 1. No person or corporation shall make use of any barbed wire in the construction of fences, or have any barbed wire upon existing fences between their own premises and those of any adjoining proprietor, within twenty-five rods of any house or barn belonging to such proprietor, without first obtaining his written consent thereto.

Penalty.

SEC. 2. Any person or corporation who shall violate the provisions of this act shall be fined not more than one hundred dollars.

1889, ch. 143.  
Barbed wire  
fence not to be  
used on grounds  
of school or  
other public  
building.  
Penalty.

SECTION 1. No barbed wire shall be used in the construction of fences, or retained upon existing fences, connected with or enclosing the grounds of any public school or other public building in this State.

SEC. 2. Any person who shall violate the provisions of this act shall be fined not more than one hundred dollars.

Sec. 3510. When any railroad shall be operated by a trustee or trustees, the duties and liabilities imposed and the right conferred by the five preceding sections upon companies operating railroads are hereby imposed and conferred upon such trustee or trustees. All orders of the Commissioners upon such trustees shall be served by leaving a true and attested copy of such order with or at the usual place of abode of one of such trustees, by some indifferent person, within six days of the date thereof.

Sec. 3511. When any railroad company shall neglect to construct any highway or bridge which it is its duty to construct, or to keep in repair any bridge, embankment, filling, or abutment, which it is its duty to maintain, the State's Attorney in any county wherein such neglect exists, or in which the whole or any part of said highway or bridge is situated, shall make complaint thereof to the Superior Court for such county, which shall proceed in the same manner against said railroad company as is required against towns neglecting to construct any road laid out by the Superior Court, or to keep in repair any public road within their limits, which it is their duty to construct or keep in repair.

Sec. 3512. When the Railroad Commissioners shall recommend to any railroad company that any changes or alterations ought to be made in the roadway or bridges of such railroad company, in order to make the same safer and more permanent, and, to carry out such recommendation it shall be necessary for such company to acquire any property or estate, or any interest in or to the same, such company may condemn and take such property, estate, or interest, in the same manner as is provided for taking, appraising, and paying for land, in section 3464.

### *Chapter CCXVI.*

#### DEPOTS.

##### SECTION.

3513. When railroad trains to stop near villages.

3514. Stations, how established on petition to judge of Superior Court.

3515. Security for compensation of engineer.

3516. Stations not to be abandoned, without approval of Commissioners.

##### SECTION.

3517. Abandoned stations how re-established.

3518. Appeals from Railroad Commissioners.

3519. Application to Superior Court to compel stoppage of trains at depots.

3520. Hearing before committee.

3521. Report of committee.

3522. Order of court, how enforced; costs.

G. S. 1875, 326,  
§ 47.  
When railroad  
trains shall stop  
near villages.

SEC. 3513. When the business center of any village containing two hundred inhabitants is more than one and a half mile from the nearest station on a railroad, and not more than one-third of a mile from said road, the Railroad Commissioners, upon the petition of twenty of said inhabitants, after due inquiry, may make such orders in regard to the stoppage of any of the trains upon said railroad, at or near said village, for the purpose of receiving and discharging passengers and freight, as they shall deem just and reasonable; and no railroad company whose trains may be thus required to stop, shall charge more than five cents for each mile and fraction of a mile, for transporting passengers between such stopping-place and the next station.

G. S. 1875, 327,  
§ 48.  
Stations, how  
established.

SEC. 3514. When twenty electors shall present their petition to a judge of the Superior Court alleging that the managers of any unfinished railroad ought to establish a station at or near a place named, and that they have reason to fear that said managers do not intend so to do, he shall, after due notice to said managers, appoint a practical engineer skilled in the construction of railroads, who, after being duly sworn, shall, with the Railroad Commissioners, hear said petition, after due notice to all parties in interest; and if on such hearing said Commissioners concur with said engineer in finding such petition true, they shall in writing designate the place within the limits embraced in said petition, where said company shall establish and maintain a suitable station; and said company shall establish and maintain said station at such place; if the Commissioners shall concur with said engineer in finding said petition untrue, they shall dismiss the same; and if said engineer shall not concur with said Commissioners, he and they shall each make a written report of the facts found by them, respectively, and of their respective opinions thereon, to said judge, who shall thereupon make such order as, upon an examination of said reports, he may deem reasonable; and any order so made by him against said company shall be binding upon it.

Petition to be  
dismissed if  
found untrue;  
engineer and  
commissioners  
to make separate  
reports if  
they disagree.

G. S. 1875, 327,  
§ 49.  
Security for  
compensation  
of engineer.

SEC. 3515. Said judge may at any time require said petitioners, on penalty of dismissal of their petition, to give such security as he shall order for the payment of such fees and expenses of said engineer as shall be taxed by him after due hearing of the parties thereon, which shall be paid by the petitioners; but if said judge shall so order, the whole or a part thereof shall be refunded by said company to the petitioners.

G. S. 1875, 327,  
§ 50.

SEC. 3516. No railroad company shall abandon any



station on its roads, in this State, after the same has been established for twelve months, except with the approval of the Railroad Commissioners, given after a public hearing held at such station, notice of which shall be posted conspicuously in said station for one month previous to the hearing.

Stations not to be discontinued without approval of commissioners.

SECTION 1. Whenever the directors of any railroad company shall change the location of the track of any railroad owned or leased by such company, for the purpose of improving the line of the railroad, and shall desire to abandon the former line, and there shall be any railroad station upon the line which it is proposed to abandon, such directors may apply in writing to the Railroad Commissioners for authority to abandon the use of such station after a new station has been provided at some convenient point upon the new line of such railroad.

1889, ch. 90. Abandonment of railroad station, the line changed.

SEC. 2. Whenever an application is made to the Railroad Commissioners under the provisions of the foregoing section, they shall fix a time and place for a hearing in relation to the same, and they shall give notice of the same by causing to be posted at least thirty days before the time of such hearing, in the railroad station which it is proposed to abandon, a copy of such application and order of notice.

Notice of hearing.

SEC. 3. The Railroad Commissioners shall have power, upon any application brought and heard under the preceding sections, to fix the location of a new station upon the new line of railroad, and when such new station has been constructed and opened for the use of the public, the railroad company in whose behalf the application is brought may abandon the old station.

Fixing of new location.

SEC. 3517. Any station on any railroad in this State, which was abandoned between the first day of January and the fourth day of July, 1866, shall upon the petition to the Railroad Commissioners of thirty freeholders residing in the town where such station was located, be restored, upon the approval of said Commissioners given after a public hearing held at the station nearest to said abandoned station, and after notice of said hearing shall have been conspicuously posted at the place of hearing for one month previously to the hearing.

G. S. 1875, 327, § 51. Abandoned stations how re-established. 37 Conn., 153.

SECTION 1. Whenever any railroad station, freight or passenger, on any railroad in this State, shall be destroyed or materially damaged from any cause, and

1893, ch. 165. Stations destroyed, how rebuilt.

thereby rendered unsuitable for use, it shall be the duty of the railroad company owning the same to rebuild or repair said station within a reasonable time.

When company neglects.

SEC. 2. If said railroad company shall neglect to rebuild or repair any station destroyed or damaged within a reasonable time, the Railroad Commissioners shall make such order regarding the rebuilding or repairing of the same as they shall deem just and proper, and said order may be enforced by mandamus brought in the name of the State.

SEC. 3. This act shall take effect upon its passage.

G. S. 1875, 327,  
§ 52.  
Appeals from  
Railroad Com-  
missioners.  
1889, chap. 213.

SEC. 3518. Any person aggrieved by any order of the Railroad Commissioners, upon any proceeding relative to the location, abandonment, or changing of depots or stations to which he was or ought to have been made a party, may appeal from the same to the Superior Court of the county in which the cause of appeal shall arise, within thirty days after the publication of such order, by a petition in writing with a proper citation signed by competent authority to all parties to said proceedings having an interest adverse to him, to be served upon them at least twelve days before the return day; and said court may hear said appeal and re-examine the question of the propriety and expediency of the order appealed from, either by itself or a committee, and shall proceed thereon in the same manner as upon complaints for equitable relief; and in case said order is not affirmed, may make any other order in the premises that it may deem proper and which might have been made by the Railroad Commissioners therein, and may award costs at its discretion. Such appeal shall be a *supersedeas* of the order appealed from until the final action of the court thereon, and said final order may be enforced by said court by attachment, mandamus, or otherwise, as it shall deem proper.

G. S. 1875, 328,  
§ 53.  
Application to  
Superior Court  
to compel com-  
panies to stop  
passenger  
trains at depots.

SEC. 3519. When any railroad company in this State shall refuse to stop any of its passenger trains at any station, ten freeholders of the town in which such station is situated may make their application in writing to the Superior Court, and if said court is not in session; to any judge thereof, praying that said company may be ordered to stop the train or trains mentioned in said application at said station, to which application a citation shall be annexed, and the same shall be served upon such company at least six days before the return day named therein.

G. S. 1875, 328,  
§ 54.

SEC. 3520. Said court, or judge, as the case may be,

shall appoint a committee of three disinterested persons, who, being first duly sworn, shall hear and decide upon said application at such time and place and with such notice to those interested as said court or judge shall order; and if said committee shall be of opinion that said application ought to be granted, they may order said company to stop its train or trains in the manner prescribed in said order, and make such other order as they shall deem just and reasonable, and shall make return of their doings to the next session of said court.

SEC. 3521. Upon such return, either party may object to the acceptance of the same for irregularity or improper conduct, and the court for such cause may set it aside and order a rehearing; but if the court accept the same it shall be conclusive, and said company shall obey said order.

SEC. 3522. Said order may be enforced by *manu damus*, and the costs of said proceeding may be taxed by said committee against either or both of said parties.

Hearing before committee.

G. S. 1875, 328, § 55. Report of committee.

G. S. 1875, 328, § 56. Order, how enforced; costs.

### Chapter CCXVII.

#### OBLIGATIONS OF AND TO COMPANIES.

##### SECTION.

- 3523. Railroad trains on Sunday restricted.
- 3524. Freight not to be handled on Sunday between certain hours.
- 3525. Penalty.
- 3526. Rates of fare on Sunday trains; penalty.
- 3527. Construction of preceding sections.
- 3528. Companies to use standard time.
- 3529. To afford each other mutual facilities.
- 3530. How compelled to make proper connections.
- 3531. To maintain safe approaches to stations.
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- 3533. How to compel them to do this.
- 3534. Order by Commissioners as to railroad connections.
- 3535. All connecting roads to have equal facilities.
- 3536. Penalty.
- 3537. Freight cars to be provided with safety couplers.
- 3538. Such couplers to be approved by Commissioners.
- 3539. Penalty.
- 3540. Connecting aprons; hand-cars not to be left near crossings; drinking-water for passengers; baggage checks; names of depots to be posted up; designation of destination of trains.
- 3541. Fraudulent evasion of payment of fare.
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- 3543. Transportation of milk.
- 3544. Penalty for refusing to transport milk.
- 3545. Freight charges for shorter distance not to exceed charges for longer distance.
- 3546. Penalty.
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##### SECTION.

- 3548. Penalty for refusing to give receipt.
- 3549. Certain employes to wear badges.
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- 3551. Complaint by railroad agents.
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- 3556. Commissioners may require sounding of whistle at crossings.
- 3557. Engineers to have copies of this law, and be sworn to obey it.
- 3558. Blowing of whistle dispensed with when.
- 3559. Duty of companies in that case.
- 3560. Stopping trains at bridges and crossings.
- 3561. Penalty.
- 3562. Duty of Commissioners on complaint of interference with navigation by use of drawbridges.
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- 3564. Switches at railroad junctions.
- 3565. Special order by Commissioners as to passing crossings without stopping.
- 3566. Number of brakemen required on a train.
- 3567. Companies to give notice to Commissioners of accidents, etc.
- 3568. Trains to be provided with hospital stretcher.
- 3569. Commissioners may make orders relative to heating and lighting cars, and report neglect to General Assembly.

1887, ch. 11.  
Railroad trains  
on Sunday  
restricted.

SEC. 3523. No railroad company shall run any train on any road operated by it within this State, between sunrise and sunset on Sunday, except from necessity or mercy; *provided*, that before ten o'clock and thirty minutes in the forenoon and after three o'clock in the afternoon it may run trains carrying the United States mail, and such other trains or classes of trains as may be authorized by the Railroad Commissioners of this State, on application made to them on the ground that the same are required by the public necessity, or for the preservation of freight.

1887, ch. 11.  
Freight not to  
be handled on  
Sunday  
between certain  
hours.  
1889, ch. 23.

SEC. 3524. No railroad company shall permit the handling, the loading, or the unloading of freight on any road operated by it, or at any of its depots or stations within this State, between sunrise and sunset on Sunday, except from necessity or mercy; *provided, however*, that the Railroad Commissioners of this State may suspend the operation of this section, so as to permit the handling, the loading, or the unloading of freight by transfer of said freight between steamboats and cars, until eight o'clock in the forenoon, at any depot or station where, upon application made to them, they shall find that the same is required by the public necessity or for the preservation of freight.

1887, ch. 11.  
Penalty.

SEC. 3525. Every railroad company which shall violate any of the provisions of the two preceding sections shall forfeit to the State the sum of two hundred and fifty dollars for any such violation.

1887, ch. 11.  
Rates of fare on  
Sunday trains.

SEC. 3526. No railroad company shall transport passengers on Sunday upon any train deemed necessary according to the intent of section 3523, for less than the highest regular fare collected on week days, and no commutation, special bargain, or season or mileage ticket shall include or provide for any travel on said day, under penalty of a forfeiture to the State of fifty dollars for each and every violation of this provision.

Penalty.

1887, ch. 11.  
Construction of  
preceding  
sections.

SEC. 3527. The provisions of the four preceding sections shall not affect statutes which prohibit secular work or recreation on Sunday, except so far as they may be found in their operation to be inconsistent with them.

1883, ch. 54.  
Railroad com-  
panies to use  
standard time.  
Penalty.

SEC. 3528. Every railroad company in their public advertisements and time tables shall make use of the standard time of this State for all stations within the State, and every railroad company which violates this section shall forfeit to the State twenty-five dollars.



SEC. 3529. Every railroad company shall run its trains each way for passengers at such times and in such manner as to afford reasonable facilities for receiving passengers from, and delivering them to the other railroads in this State, connected therewith ; and when the business connections of the railroad of any company with the railroad of any other company are not convenient and reasonable for the accommodation of passengers over said road, said company shall make such connections as the public travel and business may require.

SEC. 3530. Any person who shall be aggrieved by the neglect of any railroad company to make such connections, may prefer a petition against such company to any judge of the Superior Court, who is not a resident of the county in which the grievance complained of exists, averring such neglect, which petition shall be served upon the respondents at least twelve days before it is made returnable ; and said judge shall, by himself or by a committee, inquire into the allegations of the petition, after such notice of the hearing as he shall order, and, if the allegations in the petition are found to be true, shall order such company to make such connections, on penalty of forfeiting to the petitioner not less than fifty dollars for each day that it shall fail to comply with said order ; and in such case the judge may tax costs at his discretion, and issue execution therefor.

SEC. 1. Any person claiming to be aggrieved by the neglect of any railroad company or companies to make connections, as provided in section 3529 of the general statutes, may, upon the written approval of the select men of any town through which such railroad passes, bring his petition in writing to the Railroad Commissioners, averring such neglect, whereupon said commissioners shall appoint a time and place for hearing the same and give reasonable notice thereof to said petitioner and to the railroad company or companies, and after such hearing said Commissioners shall make such order relating to such connection as they shall find to be practicable and reasonable.

SEC. 2. The Railroad Commissioners shall communicate their decision to the petitioner and to the railroad company or companies within twenty days after the final hearing, and any railroad company failing to comply with such order within ten days after receiving notice of said decision shall forfeit fifty dollars, half to

G. S. 1875, 328,  
§ 57.  
Companies to  
afford each  
other mutual  
facilities.

G. S. 1875, 328,  
§ 58.  
How compelled  
to make proper  
connections.

1889, ch. 131.  
Complaints  
against railroad  
for neglect to  
make  
connections.

Company  
failing to  
comply with  
order of Rail-  
road Commis-  
sioners.

the petitioner and half to the State, for each day that it shall fail to comply with said order after the expiration of ten days from the time of receiving said notice.

Repeal.

SEC. 3. All acts and parts of acts inconsistent herewith are hereby repealed.

1883, ch. 84.  
Providing safe  
approaches to  
railroad  
stations.

SEC. 3531. Every railroad company shall maintain a safe approach for carriages to all its passenger stations from a contiguous or neighboring highway, and shall not permit such approach to be obstructed in any manner for a reasonable time before and after the arrival of every passenger train stopping at such station. The Railroad Commissioners are empowered to make such orders as they deem necessary and reasonable in each case to which their attention is called. Every railroad company violating such an order of the Railroad Commissioners shall forfeit to the State one hundred dollars for every day that such order is violated.

Penalty.

G. S. 1875, 329,  
§ 59.  
Trunk roads to  
afford equal  
facilities to in-  
tersecting  
roads.

SEC. 3532. When the railroad of any company, being a trunk road, shall, at or near the same place, connect with or be intersected by two or more other railroads, which are competing lines for the business to or from such trunk railroads, equal facilities, including price and rates, shall be afforded by the company operating said trunk road to each of said competing roads in the interchange of cars and transportation of freight, as well as in ticketing passengers and checking baggage.

G. S. 1875, 329,  
§ 60.  
How to compel  
companies to  
furnish such  
facilities.

SEC. 3533. If any such competing railroad company shall at any time deem itself aggrieved in reference to such facilities, its managers may complain to the Railroad Commissioners, who, after due notice and hearing, shall prescribe such regulations as will, in their judgment, secure reasonable facilities for the accommodation of the business of each of said connecting railroads, and fix the terms on which such facilities shall be afforded by or to each of said railroad companies; and the Superior Court may compel the performance thereof, by attachment, *mandamus*, or otherwise, and the expenses of the proceedings shall be paid by said parties, as shall be determined on by said court.

G. S. 1875, 329,  
§ 61.  
Order by Rail-  
road Commis-  
sioners as to  
connections to  
be made.

SEC. 3534. When it shall appear to the Railroad Commissioners, by the written complaint of the president, or a majority of the directors, of any railroad company in this State, or a majority of the selectmen of any town through which any railroad passes, that the business connections of any other railroad connected with such railroad are not convenient and reasonable for the accommodation of the inhabitants on the line of such

road, said Commissioners shall forthwith cause a notice to be given to all parties interested, specifying the time and place of hearing such complaint, and on such hearing, if good and sufficient cause exist, shall make such regulations in relation thereto as they shall deem proper; and any railroad company neglecting to comply with such regulations shall forfeit to the State twenty-five dollars for each day of such neglect.

SEC. 3535. Every railroad company owning or operating any railroad, located wholly or in part within this State, which connects with any other railroad in this State, shall receive, and with reasonable dispatch draw over the same, the passengers, merchandise, and cars of the company owning or operating such connecting railroad, and shall not in any manner discriminate as to time and price for such hauling against said connecting railroad in favor of other shippers at said point of connection; and if any such company shall fail so to do, complaint may be made thereof by such connecting railroad to the Railroad Commissioners, who, after reasonable notice to such company complained of, shall, if upon a hearing they find the complaint true, order such company to receive and forward as herein provided for, such passengers, merchandise, and cars as may be delivered to it by said connecting railroad.

G. S. 1875, 329,  
§ 62.  
All connecting  
roads to have  
equal facilities.

SEC. 3536. Every railroad company refusing to conform to any order made, as specified in the preceding section, shall be fined twenty-five dollars.

G. S. 1875, 330,  
§ 63.  
Penalty.

SEC. 3537. Every railroad company operating any railroad located partially or wholly in this State, shall cause every freight car that shall be built or purchased for use on such railroad, to be provided with couplers so arranged as to render the presence of any person between the ends of the cars unnecessary for the purpose of coupling the same.

1882, ch. 55.  
Freight cars to  
be provided  
with safety  
couplers.

SEC. 3538. No couplers shall be placed on any freight cars built or purchased as specified in the preceding section, nor shall any new couplers be substituted for any in use, until the same shall have been approved by the Railroad Commissioners, and such couplers shall be hung at such height above the face of the railroad track as shall be designated by such Commissioners.

1882, ch. 55.  
Such couplers  
to be approved  
by Railroad  
Commissioners.

SEC. 3539. Every railroad company which shall permit a violation of the two preceding sections, shall forfeit to the State for every such violation the sum of fifty dollars.

1882, ch. 55.  
Penalty.

SEC. 3540. Every railroad company shall provide its passenger, baggage, mail, and express cars with suitable

G. S. 1875, 330,  
§ 64.

Connecting aprons.	platforms to secure the safety of persons passing from car to car, or connecting aprons or bridges, to the approbation of said Commissioners, except that freight or baggage cars need not be thus connected with the platform of a passenger car attached to a freight train; shall
Hand-cars.	not allow any hand-car, or other car not moved by steam belonging to it, and used upon its railroad, when removed from the railroad track (except when placed in a building prepared for it), to remain within fifty feet of any road or highway crossing said track; shall carry in each passenger car, in a tank or other suitable appurtenance, a sufficient quantity of good drinking water for
1889. Drinking water.	the free use of the passengers, with a clean tumbler or cup for using it; or instead thereof shall carry through each passenger car, once an hour, a suitable quantity of good drinking water for the free use of the passengers, with suitable appurtenances for carrying it, and a clean glass tumbler for using it; shall give each passenger,
Checks for baggage.	who shall be separated from his baggage by said company, a receipt or check for it at the time of receiving it; and shall conspicuously post on each passenger depot building the name of the station, and on each passenger car which leaves the <i>termini</i> of their own or any other road, a legible card or cards, not less than three feet in length, with large letters, distinguishing way from express trains, and designating the direction in which the trains are next to move, unless such cards shall be dispensed with by the Commissioners.
Name of station.	
Designation of way and express trains.	

1893, ch. 106.  
Late trains,  
when bulletined.

SECTION 1. The Railroad Commissioners shall, whenever requested by twenty legal voters residing within two miles of any railroad station on any railroad in this State, or by the mayor of the city, the first selectman of the town, or the warden of the borough in which said station is located, issue an order commanding the railroad company owning such station to bulletin the arrival and departure of all trains over ten minutes late, together with a statement of the cause of the delay of said trains.

Orders not to be  
rescinded, except.

SEC. 2. No such order shall be rescinded except after hearing by said Railroad Commissioners held at or near such station, of which hearing reasonable notice by mail shall be given to at least five signers of such request.

Penalty.

SEC. 3. Any railroad company failing to comply with any such order shall be subject to the penalties prescribed in section 3424 of the general statutes.



SEC. 3541. No person shall fraudulently evade or attempt to evade, the payment of any fare lawfully established by a railroad company, and whoever does not, upon demand, first pay such fare, shall not be entitled to be transported over any railroad; but conductors or employes of railroad companies shall not put a passenger off from trains between stations.

G. S. 1875, '330, § 65. Penalty for fraudulently evading payment of fare.

SEC. 3542. No railroad company which has had a system of commutation fares in force for more than four years shall alter or abolish it, except for the regulation of the price charged for such commutation; and such price shall, in no case, be raised to an extent that shall alter the ratio as it existed on the first day of July, 1865, between such commutation and the rates then charged for way fare, on the railroad of such company.

G. S. 1875, 330, § 66. Change in commutation fares.

SEC. 3543. Every railroad company shall transport milk for every person by the same trains and upon the same conditions as it transports milk for any other person.

G. S. 1875, 330, § 67. Transportation of milk.

SEC. 3544. Every railroad company which shall willfully refuse to transport milk for any person according to law, shall forfeit twenty dollars to him who shall sue therefor.

G. S. 1875, 530, §§ 41, 42. Penalty for refusing to transport milk.

SEC. 3545. No railroad company shall charge or receive for the transportation of freight to any station on its road a greater sum than is at the time charged or received for the transportation of the like kind and quantity of freight from the same original point of departure, and under similar circumstances, to a station at a greater distance on its road in the same direction. Two or more railroad companies whose roads connect shall not charge or receive for the transportation of freight to any station on the road of either of them a greater sum than is at the time charged or received for the transportation of the like kind and quantity of freight from the same original point of departure and under similar circumstances to a station at a greater distance on the road of either of them in the same direction. In the construction of this section the sum charged or received for the transportation of freight shall include all terminal charges; and the road of a company shall include all the road in use by it, whether owned or operated under a contract or lease.

1885, ch. 82. Freight charges for shorter distance not to be more than for a longer distance.

SEC. 3546. Every railroad company which violates any provision of the preceding section, in addition to the liability for all damages sustained by reason of such violation, shall forfeit two hundred dollars, to be recovered to his own use, by the party aggrieved, or to the use of

1885, ch. 82. Penalty.

the State by the State's Attorney of the county in which such violation was committed, but no action for any such forfeiture shall be maintained unless the same is brought within one year from the date of such violation.

1879, ch. 115.  
Penalty for re-  
fusing to trans-  
port material  
for repair of  
another road.

SEC. 3547. Every railroad company which shall refuse to transport over the line of its road any railroad ties, sleepers, or material to be used in the construction or repair of any other railroad, at the same rate or price as other freight of the same class, shall forfeit not less than fifty nor more than three hundred dollars, half to him who shall sue therefor, and half to the State.

G. S. 1875, 530,  
§ 45.  
Penalty for  
refusing to give  
receipt.

SEC. 3548. Every railroad company which shall refuse to give a receipt to the owner or shipper of any commodity delivered to it for transportation, describing such commodity, shall forfeit to such owner or shipper fifty dollars.

1889, ch. 212.  
Railroad com-  
pany not to  
charge for  
detention of  
cars in loading  
or unloading.

SEC. 1. No railroad company, owning or operating any railroad in this State, shall claim, demand, or collect from any shipper or consignee of merchandise or freight, any sum, damage, or charge for the delay or detention of cars in loading or unloading the same, for any period of less than four consecutive days, Sundays and legal holidays excluded; such four days to be computed from the time the cars shall be accessible to the shipper or consignee for the purpose of loading and unloading the same.

Nor to collect  
for storage for  
time less than  
two days.

SEC. 2. No railroad company shall claim, demand, or collect from any consignee of merchandise or freight, any sum or charge for the storage of any merchandise or freight in any freight house, or warehouse, or other structure, for any period less than two consecutive days, Sundays and legal holidays excluded; such two days to be computed from the time of the arrival of such merchandise or freight at the place of delivery. Any railroad, violating this or the preceding section, shall forfeit double the amount collected to any person suing therefor.

Nor to have  
lien for freight  
or advances,  
unless.

SEC. 3. No railroad company shall have any lien upon any merchandise or freight carried or transported by such railroad company for any charges for carrying such freight, or for any advances upon freight so carried or transported, unless such railroad company shall, upon request, deliver to the consignee of such freight or his agent, for his own use, a copy of the bill or statement of such charges and advances as the same appears upon the way-bill held by such company.

SEC. 3549. All the conductors, brakemen, and bag-gagemen, employed upon the passenger trains of any railroad company, shall wear, when on duty, in a conspicuous place, a badge denoting their respective duties, and the name of such company.

G. S. 1875, 330, § 68.  
Certain employees to wear badges.

SEC. 3550. No person shall, without the permission of the managers of the railroad, be upon, or attach himself to, any engine or car upon the track of any railroad, or occupy any part of the platform or grounds of any railroad station, nor ride, drive, or lead any beast on said track, except for the purpose of crossing it.

G. S. 1875, 330, § 69.  
Being on car platforms or grounds, or driving on track.

SEC. 3551. Every station agent of any railroad company, who shall know or have immediate information that any person has violated any provision of the preceding section, shall forthwith notify a grand juror or other informing officer of the town in which said offense shall have been committed.

G. S. 1875, 330, § 70.  
Agents of companies to make complaint.

SEC. 3552. Every person who shall violate any provision of the two preceding sections shall be fined more than fifty dollars, or imprisoned not more than thirty days, or both.

G. S. 1875, 331, § 71.  
Punishment.

SEC. 3553. Every engine used upon any railroad shall be supplied with a bell of at least thirty-five pounds weight, and a suitable steam whistle, which bell and whistle shall be so attached to such engine as to be conveniently accessible to the engineer, and in good order for use.

G. S. 1875, 331, § 72.  
Engines to have bell and whistle.

SEC. 3554. Every person controlling the motions of any engine upon any railroad shall commence sounding the bell or steam whistle attached to such engine when such engine shall be approaching, and within eighty rods of the place where said railroad crosses any highway at grade, and keep such bell or whistle occasionally sounding until such engine has crossed such highway; and the railroad company in whose employment he may be shall pay all damages which may accrue to any person in consequence of any omission to comply with the provisions of this section; and no railroad company shall knowingly employ any engineer who has been twice convicted of violating the provisions of this section.

G. S. 1875, 331, § 73.  
Engineers to sound bell or whistle when crossing highways, etc.

SEC. 3555. Every engineer in charge of a locomotive engine may direct and authorize any fireman or assistant engineer who is under his authority at the time, to perform the duties imposed upon such engineer by the preceding section, but nothing in this section shall be construed as relieving the engineer from any liability or responsibility.

1887, ch. 27.  
Assistant engineer or fireman may sound bell or whistle at crossing.  
Engineer's responsibility not relieved.

SEC. 3556. When it shall appear to the Railroad Commissioners, upon the written complaint of the select-

1882, ch. 94.  
Commissioners may, upon com-

plaint, require sounding of whistle at crossing.

G. S. 1875, 331,

§ 74.  
Engineers to have copies of this law and be sworn to obey it.

1881, ch. 41.  
1886, ch. 40.  
Blowing of whistle dispensed with, when.

1881, ch. 41.  
Duty of companies.

G. S. 1875, 331,

§ 75.  
Trains to stop before crossing drawbridge, or railroad crossing.

G. S. 1875, 331,

§ 76.  
Penalty for violation.

men of any town, that public safety requires the sounding of the engine whistle at any highway crossing when the train passes over or under such highway, they shall make such order in relation thereto as they shall deem proper.

SEC. 3557. No railroad company shall permit any person to drive any engine upon any railroad operated by such company unless he shall have first received a printed copy of this section and of sections 3553 and 3554, and shall have made oath that he will faithfully comply with the provisions thereof.

SEC. 3558. When the selectmen of any town, the mayor and common council of any city, or the warden and burgesses of any borough, shall bring their petition in writing to the Railroad Commissioners, representing that the interests of the public require that the blowing of the locomotive whistle upon a railroad at certain points within the limits of such town, city, or borough, should be dispensed with, said Commissioners shall appoint a time and place for hearing said petition, and shall give reasonable notice thereof to the petitioners and the railroad company in question; and if after such hearing they shall be of opinion that the sounding of the whistle can be dispensed with, without danger to the public, they shall direct said railroad company to omit the same, and require any other signal which said Commissioners shall judge best in lieu thereof, at such points as they may specify.

SEC. 3559. When any railroad company shall receive such directions from the Railroad Commissioners, it shall thereafter omit the sounding of the whistle at the points named in said order.

SEC. 3560. All railroad trains shall be brought to a full stop, at a distance not less than two hundred feet, nor more than eight hundred feet, from the draw in every drawbridge upon the line of the railroad over which they are to be run, and from every point where such railroad is crossed by another railroad, and in plain sight of the same, before being run upon or over such draw or crossing; but the Railroad Commissioners may in writing authorize the passing of any draw or any railroad crossing, without stopping as aforesaid, when, in their opinion, it can be done consistently with public safety.

SEC. 3561. Every person running such a train, who shall violate the provisions of the preceding section, shall be fined not more than one hundred dollars, or imprisoned not more than three months; and the presi-



dent and directors of any railroad company who shall knowingly permit any violation of the same, shall be fined five hundred dollars.

SEC. 3562. It shall be the duty of the Railroad Commissioners to investigate any and all complaints made to them of interference with navigation in the uses of drawbridges over any navigable waters in this State, and to make such orders in reference thereto as will in their judgment remove, so far as possible, all just cause of grievance consistent with the rights of parties that may be affected thereby, and the public safety.

SEC. 3563. All trains which are obliged to come to a full stop before crossing any drawbridge, shall, when the Railroad Commissioners shall so order, stop at the regular station nearest to such drawbridge for a sufficient length of time to accommodate passengers who may desire to enter or leave said trains, if said station is in full view of said drawbridge, and not more than one hundred and twenty rods therefrom.

SEC. 3564. No railroad company shall permit any passenger train to be run over any switch, at any railroad junction of different roads, or any station where such train does not regularly stop, or is not then to be stopped, unless there be, at the time when such train shall arrive near such switch, a switchman standing at such junction switch, or the station switch so first approached with a white flag by day, or a light at night, to indicate that such switches are in a proper position for the passage of such train; or unless, in the absence of such switchman, said train shall first be brought to a full stop, at the distance of not less than two hundred feet nor more than seven hundred feet therefrom; and every person who shall run a train over any such switch, contrary to the provisions of this section, shall be fined not more than one hundred dollars, or imprisoned not more than sixty days, or both; and the president and directors of any railroad company, who shall permit such train to be run over any such switch, contrary to the provisions of this section, shall be fined five hundred dollars; but the Railroad Commissioners may dispense with any such switchmen.

SEC. 3565. The Commissioners may permit passenger trains to be run past any switch, station, or highway crossing without stopping, at such rate of speed as they may prescribe, upon the provision by said company of such safeguards for the protection of its passengers and the public as said commissioners may require; and for neglecting to make such provision, such company shall pay a fine of five hundred dollars.

1885, ch. 81.  
Duty of Commissioners on complaint of interference with navigation by use of drawbridge.

G. S. 1875, 331, § 77.  
Passenger trains to stop at nearest regular station to a drawbridge.

G. S. 1875, 331, § 78.  
Switches at railroad junctions.

G. S. 1875, 332, § 79.  
When trains may pass switch, etc., without stopping.

G. S. 1875, 332,  
§ 80.  
Number of  
brakemen on  
train.

SEC. 3566. Upon every train run, or intended to be run, upon any railroad in this State, at a greater average speed than thirty miles an hour, between stations, and consisting of more than two passenger cars, one brakeman shall be kept at the brake of each car; but when the double-action brake is used on any such train but one brakeman need be kept upon and for every two cars connected with such train; and the Railroad Commissioners may grant permission to any railroad company to reduce the number of brakemen required upon passenger trains, when such company may have adopted a system of brakes to be operated by the engineer, which in the opinion of said Commissioners may render such number of brakemen unnecessary; but said Commissioners may revoke such permission when they consider the public safety requires; and on such revocation such company shall place upon its train the number of brakemen required by law.

G. S. 1875, 332,  
§ 81.  
1881, ch. 10.  
Companies to  
give notice to  
Commissioners  
of accidents.

SEC. 3567. Every railroad company shall, within twenty four hours after the occurrence of any accident attended with personal injury, give notice of the same to the Railroad Commissioners, in writing, who, upon receiving such notice, or upon public rumor of such accident, may repair, or dispatch one of their number to the scene of said accident, and inquire into the facts and circumstances thereof; and the Commissioners shall, without charge, furnish any person injured, or the friends of any person killed, any information they may have acquired in relation to any disaster, and the names of the persons from whom the same was obtained, or by whom the same may be proved.

1883, ch. 117.  
Railroad trains  
to be provided  
with hospital  
stretcher.

SEC. 3568. Every railroad company shall provide and cause to be placed in some car attached to every train passing over such railroad, and at every passenger station, a suitable hospital stretcher for use in case of accidents.

1887, ch. 90.  
Railroad Com-  
missioners may  
make orders  
and report neg-  
lect to General  
Assembly.

SEC. 3569. The Railroad Commissioners may make any and all orders which shall seem to them to be required by public safety and prudence relative to heating and lighting passenger cars, and shall report any neglect by any railroad companies to comply with such orders to the General Assembly at its next regular session.

*Chapter CCXVIII.*

## BONDS AND MORTGAGES.

## SECTION.

3570. Loans and bonds.  
 3571. Mortgage of road.  
 3572. Mortgage, including rolling stock, etc.,  
 and foreclosure of same.  
 3573. Surrender of road to mortgage trustees.  
 3574. Limitation of liability of trustees in  
 possession.  
 3575. Return and record of inventory.

## SECTION.

3576. Rendition of quarterly accounts; fore-  
 closure.  
 3577. Removal of trustees.  
 3578. Rights of prior incumbrancers saved.  
 3579. Trustees to have the powers of the  
 company.  
 3580. Expenses and compensation of trustees.

SEC. 3570. Every railroad company may borrow money, and may secure the repayment of the same by its bonds, signed by its president, and countersigned by its treasurer; but before being issued said bonds shall be registered in the office of the Comptroller, and a certificate thereof shall appear on the face of each bond; and the Comptroller shall cancel any bonds so registered which may be brought to him for that purpose, and enter said act of canceling in his register; but no railroad company shall issue any bonds of a less denomination than one hundred dollars, nor have bonds outstanding at any one time to a greater amount than one-half the actual cost of the construction of said railroad, or than one-half the sum which its president, treasurer, and an engineer, approved by the Railroad Commissioners, shall certify under oath has been actually expended upon its railroad; and any false swearing in the matter shall be perjury, and the Comptroller shall not permit the bonds of any railroad company, registered in his office, and uncanceled, to exceed the amount limited in this section. Such company may dispose of its bonds as shall be authorized by its stockholders.

SEC. 3571. The company may secure said bonds by a mortgage of its property, or any part thereof, by deed duly executed by its president, under the corporate seal, to the Treasurer of the State, and his successors in office, in trust for the holders of said bonds, and recorded in the office of the Secretary of the State.

Every railroad company which shall guarantee the payment of the principal or interest of any bonds, or dividend on any stock issued by any other corporation, shall cause such bonds and the certificates for such stock to be registered in the office of the Comptroller, and a certificate thereof shall appear on the face of each of such bonds and certificates of stock. And the Comptroller shall cancel any bonds and certificates of stock so registered which may be brought to him for that

Limitation of guaranty.

purpose, and enter said act of canceling in his register. But no railroad company shall guarantee bonds or stock to an amount which, together with the outstanding bonds issued by said guaranteeing company, shall exceed one-half the actual cost of the construction of the railroad of said company, the amount of which actual cost its president, treasurer, and an engineer approved by the Railroad Commissioners, shall certify under oath has been actually expended upon its railroad, and any false swearing shall be perjury. And the Comptroller shall not permit the registration of the bonds of any railroad company, or of any bonds whose principal or interest is guaranteed by such railroad company, or of any stock of another company upon which any income or dividend is guaranteed by such railroad company, so long as there are outstanding and uncanceled bonds of said company and bonds or stock guaranteed by said company, the principal of which said bonds and guaranteed bonds and stock all together is equal in amount to one-half the cost of the company's railroad to be certified in the manner hereinbefore set forth. And no railroad company shall issue its own bonds or guarantee the principal or interest of bonds or a dividend upon stock of any other company so long as there are outstanding and uncanceled its own bonds or the bonds or stock of another company, guaranteed, as aforesaid, to a principal amount equal to one-half the cost of said railroad company, as verified in the manner above set forth.

1877, ch. 38.  
Mortgages of  
railroad prop-  
erty and fore-  
closure of same.

SEC. 3572. When any railroad company has mortgaged, or shall mortgage, its railroad, pursuant to law, to secure its bonds, and has included or shall include in said mortgages all or any part of its rolling stock, locomotives, and cars, whether those owned by it at the date of said mortgage, or those thereafter to be acquired by it for use upon said railroad, or both, such mortgage shall be deemed valid and effectual, as respects all the property therein included as aforesaid, and may be foreclosed in the same manner as ordinary mortgages of real estate; and the record thereof in the office of the Secretary of the State shall be a sufficient record and notice to protect the title under the mortgage, notwithstanding such company may remain in possession of all or any part of the mortgaged property.

G. S. 1875, 333,  
§ 84.  
Surrender of  
road to mort-  
gage trustees.

SEC. 3573. When any railroad company shall have mortgaged its property or any part thereof, to any person, in trust, for the security of its creditors, or for the security of any class of them, and shall have made



default in the payment of principal or interest, due to such creditors, any such creditor may bring his complaint to the Superior Court, in any county in which such railroad or any part thereof is located, setting forth such fact and claiming that such trustee may be placed in the possession of such property, for the benefit of such creditors; and such complaint shall be heard and determined at the first session of the court to which it is returnable, unless continued for reasonable cause; and if the allegations therein are found true, such court shall decree that the said company and its president and directors, under a suitable penalty, shall surrender such mortgaged property to the trustee, for the benefit of such creditors.

SEC. 3574. When any such trustees shall have taken possession of any property in pursuance of the provisions of the preceding section, or in pursuance of any authority contained in the mortgage or deed of trust, he shall take charge of and operate such railroad, or railroad property, for the benefit of the creditors for whom such trust was created, and shall not be personally liable for any cause or injury arising from the operation of such road, or while he may operate it, except for his willful mismanagement, or for any contracts made by him as such trustee; but all such property shall be liable for the acts and proceedings of such trustee, in the execution of his trust, to the extent of the interest of the creditors, for whose benefit he may act; and any proceeding for the purpose of making such property liable, shall be brought against such trustee, describing him as such.

G. S. 1875, 333,  
§ 85.  
Limitation of  
liability of  
trustees in pos-  
session.

Trust estate  
liable for acts of  
trustee.

SEC. 3575. The trustee upon taking possession of such property, shall make an inventory of all which may come into his possession under oath, and lodge it for record in the office of the Secretary of the State; and if any other property shall, from time to time, be discovered by him, he shall make and lodge a like inventory, under oath, as aforesaid.

G. S. 1875, 333,  
§ 86.  
Trustee to make  
and return in-  
ventory.  
26 Conn., 121.

SEC. 3576. The trustee shall, from time to time, while operating such road, file his account, quarterly, in the office of the Secretary of the State, of all moneys received or disbursed by him, in the course of his agency; and may proceed at his discretion, in the Superior Court, in any county in which such railroad, or any part thereof, is located, to foreclose said railroad company, and all subsequent incumbrancers, for the use of the bondholders, or other creditors for whom he acts; and such court may limit the time for the redemp-

G. S. 1875, 333,  
§ 87.  
Trustee to ren-  
der quarterly  
accounts to  
Secretary.

May foreclose  
for the bond-  
holders.

G. S. 1875, 334,  
§ 88.  
Superior Court  
may remove  
trustee for  
cause and ap-  
point another.

tion of the mortgaged property, as in ordinary proceedings for the foreclosure of real property.

SEC. 3577. If such trustee shall neglect or unnecessarily delay to perform his duties, any creditor, represented by such trustee, may apply to the Superior Court in any county in which such railroad or any part thereof is located, for the removal of such trustee, which application shall be heard at the first session of said court; and upon such facts being found true, such court may remove the trustee from his office, and appoint another in his stead.

G. S. 1875, 334,  
§ 89.  
Rights of prior  
incumbrancers  
not to be  
affected.

SEC. 3578. Nothing in the five preceding sections shall affect any mortgage, trust, or lien upon the property foreclosed, which was created prior to the mortgage, trust, or lien, under which such trustee may act; but the trustees for all such prior incumbrancers may proceed, by foreclosure or otherwise, notwithstanding any act or proceedings by subsequent incumbrancers or their trustees.

G. S. 1875, 334,  
§ 90.  
Trustees to  
have the same  
powers, etc., as  
the corporation.

SEC. 3579. When any such railroad is in the possession of an assignee or trustee, he shall have the same rights, powers, and privileges as are conferred upon railroad companies; and all expenses and damages incurred by such persons so in possession, in good faith to improve the lines of the railroads so in their charge, shall be reimbursed to them from the earnings of such railroad while they have the possession thereof.

G. S. 1875, 334,  
§ 91.  
Expenses of  
road, damages,  
compensation  
of trustee, etc.,  
to be deducted  
from earnings.

SEC. 3580. The expenses of operating such railroad, or other property, including repairs and all other reasonable expenses of the trustee, and any damages incurred for any injury sustained during the time of his execution of said trust, and all claims secured by any prior mortgages or incumbrances, which shall have become payable before or during said time, and also a reasonable compensation to be allowed to the trustee by the Superior Court, shall be deducted from the earnings of the road, before any part of such earnings shall be paid to the creditors.

#### MISCELLANEOUS PROVISIONS.

1889, ch. 198.  
Comptroller to  
furnish trans-  
portation  
tickets to mem-  
bers of General  
Assembly.

SECTION 1. The Comptroller, whenever requested by any member or member-elect of the General Assembly so to do, shall procure from such railroad company or companies as may be necessary a ticket or tickets entitling said member to transportation by the most convenient route between Hartford and his home station, during the session of the General Assembly next to

be holden, or then current, which ticket or tickets the Comptroller shall deliver to the said member upon receiving from him an assignment to the State of his mileage allowance for the session in question, which assignment shall be received in full payment therefor.

SEC. 2. The Comptroller is hereby authorized and directed to pay for the tickets, so procured by him, such sum or sums as may reasonably be charged therefor by the railroad companies. Payment therefor.

SEC. 3. No railroad company shall issue to any member or member-elect of the General Assembly any ticket or other token entitling him to transportation to and from Hartford, during any session of the General Assembly, except as provided in section one of this act, unless such ticket be issued upon the same terms and at the same price as tickets are ordinarily issued by said company entitling the holder to an equivalent amount of travel. Railroad company not to issue tickets to members, except.

### *Chapter CCXIX.*

#### SECTION.

3581. Responsibility for fire communicated by engine; insurable interest in land exposed.

3582. Notice of claim for damages by fire.

#### SECTION.

3583. Appraisal of damages for land condemned shall not include risk of fire.

3584. Water-closets at stations.

3585. Duties of railroad companies, on whom obligatory.

SEC. 3581. When any injury is done to a building or other property of any person, by fire communicated by a locomotive engine of any railroad company, without contributory negligence on the part of the person entitled to the care and possession of the property injured, the said railroad company shall be held responsible in damages to the extent of such injury to the person so injured; and every railroad company shall have an insurable interest in the property for which it may be so held responsible in damages along its route, and may procure insurance thereon in its own behalf. 1881, ch. 92.  
Responsibility for fire communicated by engine.  
52 Conn., 264.  
54 Conn., 447.

SEC. 3582. No action shall be brought under the preceding section unless written notice of the claim is given to the defendant company within twenty days after the fire, specifying the day and hour of the fire, the property injured, and the amount claimed as damages. Such notice may be given by a letter signed by the claimant or his agent, mailed to the superintendent of the railroad, or delivered to its station agent at a station in the town where the fire occurred. Company has insurable interests in property exposed to such fire.  
1881, ch. 92.  
Notice of claim for damages by fire.

SEC. 3583. No appraisal of damages for land taken or injured by the location or construction of a railroad, 1881, ch. 92.  
Appraisal of damages for

land condemned shall not include risk of fire.

shall include any compensation for the increased risk of fire to any buildings erected on or to be erected on land outside of such location, on account of sparks from locomotive engines on such railroad.

1882, ch. 47.  
Water-closets at stations.

SEC. 3584. Every railroad company operating steam railroads in this State shall maintain at each regular passenger depot on the railroad operated by them respectively such suitable water-closets as in the judgment of the Railroad Commissioners the public convenience may require; and said Commissioners may make all necessary orders in the premises, and enforce the same by *mandamus*, in the name of the State.

1884, ch. 110.  
Duties of "railroad companies," on whom obligatory.

SEC. 3585. All duties and obligations imposed by law upon railroad companies, in reference to returns to be made to the Comptroller or Railroad Commissioners, are hereby made obligatory and binding upon such corporations, and upon trustees, receivers, or other persons that lay out, construct, maintain, or operate a railroad operated by steam power.

## Chapter CCXX.

### RETURNS.

#### SECTION.

1. Forms for returns.
2. When to be made; to be signed and sworn to.
3. Penalty for neglect.

#### SECTION.

3589. Commissioners may require amendment of defective returns, under penalty.
3590. To be made by lessors.

1889, ch. 172.  
R. R. Commissioners to furnish blanks for railroad returns.

SECTION 1. The Railroad Commissioners shall, on or before the thirtieth day of June, annually, furnish to every railroad company, and to the trustees operating any railroad, duplicate blanks for returns in the form required by the Inter-State Commerce Commission, which returns shall be for the year ending on said thirtieth day of June.

Companies to make their returns accordingly.

SEC. 2. All companies or trustees receiving such blank forms shall return one of them to the Commissioners on or before the fifteenth day of September in each year, with all questions fully answered, except where the answers would be "none" or "nothing," in which case the question itself may be stricken out. Said returns shall be signed and sworn to by the president or vice-president and treasurer of the company, or by a majority of the trustees making the same.

Penalty for refusal or neglect.

SEC. 3. Every company, whose president or vice-president and treasurer or trustees shall refuse or neglect to make such returns, shall forfeit to the State



twenty-five dollars for each day of such neglect or refusal, and such Commissioners shall report such forfeiture to the State Treasurer, and the books of every railroad company shall at all times be open to the inspection of any committee of the General Assembly appointed for that purpose.

SEC. 4. Sections 3586, 3587, and 3588 of the gen- Repeal.  
eral statutes are hereby repealed.

SEC. 3589. Every railroad company shall make its 1873, ch. 60.  
annual returns strictly according to the forms provided, Returns to con-  
and if the officers or trustees find it impracticable to form strictly to  
return all the items in detail as required, they shall, in the forms.  
their report, give the reasons why they cannot be given;  
but no company shall be excused for not giving such  
details because it does not keep its accounts in such  
manner as will enable it to do so. And when any such  
returns seem to said Commissioners defective or erro- Commissioners  
neous, they shall notify the company or trustees mak- may require  
ing the same, and require the amendments of such amendment of  
returns within fifteen days, under the same penalty as defective re-  
is provided for refusing or neglecting to make returns. turns, under  
penalty.

Every person who shall willfully make false report to 1889, ch. 121.  
the Insurance Commissioner or the Railroad Commis- Making false  
sioners, or who shall testify or affirm falsely to any report to  
material fact in any matter wherein an oath or affirma- insurance or  
tion is required or authorized, or who shall make any railroad  
false entry or memorandum upon any book, paper, commissioners,  
report, or statement of any insurance or railroad com- how  
pany, with intent in either case to deceive the Insurance punished.  
Commissioner or the Railroad Commissioners, or any  
agent appointed to examine the affairs of any such com-  
pany, or to deceive the stockholders or policy-holders or  
any officer of any such insurance or railroad company,  
or to injure or defraud any such company, and any  
person who, with like intent, aids or abets another in  
any violation of this act, shall be imprisoned in the  
State prison not less than one nor more than five  
years.

SEC. 3590. The officers, trustees, or receivers of 1884, ch. 110.  
every railroad company which has leased a railroad Returns to be  
upon terms by which the rental is based upon the earn- made by lessors  
ings of the leased road shall make returns to the Rail- of railroad.  
road Commissioners of the leased road, separate and  
apart from the business of the lessee, and in the same  
manner that the officers of said leased railroad would be  
required to make returns had it not been leased.

## CONNECTICUT CENTRAL RAILROAD.

## SECTION.

3591. Connecting roads to furnish and be furnished with accommodations, etc.  
 3592. When companies disagree as to such accommodations.

## SECTION.

3593. Preceding sections confined to Connecticut Central and Rockville railroads and their connections.

1878, ch. 89.  
 Connections of  
 Connecticut  
 Central Rail-  
 road.

SEC. 3591. When the railroad of the Connecticut Central Railroad Company, or any of its branches, meets or lawfully crosses another railroad at the same level therewith, the company by which either of said railroads is owned or operated may, with the written consent of the Railroad Commissioners, and upon such terms as said Commissioners shall, after due hearing, prescribe, enter its road upon or unite the same with and use the road for the other; but no locomotive engine or other motive power shall be allowed to run upon a railroad except such as is owned or controlled by the company owning or operating such railroads or with the consent of such company; and every such company shall, at all reasonable times, and for a reasonable compensation, draw over its railroad the passengers, merchandise, and cars of the other, and each of them shall for a reasonable compensation provide upon its railroad convenient and suitable depot accommodations for the passengers and merchandise of the other road passing to and over it, and shall receive and deliver the same in the manner it receives and delivers its own passengers and freight.

Connecting  
 roads to furnish  
 mutual accom-  
 modations, etc.

1878, ch. 89.  
 When compa-  
 nies disagree  
 as to such ac-  
 commodations,  
 etc., Railroad  
 Commissioners  
 may determine  
 the matter.

SEC. 3592. If the companies cannot agree upon the stated periods at which the cars of one shall be drawn over the other, and the compensation to be paid therefor, or cannot agree upon the terms and conditions upon which the accommodation shall be furnished for the passengers and merchandise of the other, the Railroad Commissioners, upon the petition of either party and notice to the other, shall hear the parties and shall in each case determine (having reference to the convenience and interests of the companies and of the public to be accommodated thereby) the stated periods for drawing cars and the compensation therefor, or the terms and conditions for passengers and merchandise, or the requisite terminal accommodations as aforesaid; and said Commissioners, upon the application of either party, shall determine all questions between the parties in relation to the transportation of freight and passengers, and other business upon and connected with said

railroads in which they are jointly interested, and the manner in which the business shall be done, and apportion to each company its respective share of the expenses, receipts, and income of the same. And the award of the commissioners, or a major part of them, shall be binding upon the respective companies interested therein for one year, or until the Commissioners shall revise and alter the same; *provided*, however, that any railroad company aggrieved by any order of the Railroad Commissioners, made under the provisions of this chapter, may appeal from the same to the Superior Court of the county wherein said railroads meet, within twenty days of the date of such order, in the same manner that appeals are allowed upon any proceeding relative to the location, abandonment, or changing of depots or stations.

Appeal from  
Commissioners.

SEC. 3593. The provisions of the two preceding sections shall apply to the Connecticut Central and such other railroads whose tracks are now intersected or crossed by the track or tracks of said Connecticut Central Railroad; and also to the Rockville Railroad and to such other railroads as connect therewith or are intersected thereby, and to the several railroad companies owning or operating said respective railroads; but none of said provisions shall apply to any other railroad.

1878, ch. 89.  
1879, ch. 90.  
Preceding sections confined to the Connecticut Central and Rockville Railroads and their connections.

#### *Title LXVII, Chap. 224.*

##### GENERAL PENALTY.

SEC. 3607. Every person who shall violate any provision of this title, for which no other penalty is prescribed or provision made, shall be fined not less than ten nor more than five hundred dollars.

G. S. 1875, 340,  
§ 1.  
Penalty

#### *Title LXVIII, Chap. 231.*

SEC. 3696. The member of the Board of Railroad Commissioners who is a civil engineer, and one civil engineer residing in each congressional district in this State, to be appointed by him, shall constitute a board of civil engineers, and have the supervision of all dams and reservoirs now existing or hereafter constructed in any locality where, by the breaking away of the same, life or property may be in danger of destruction.

1878, ch. 131,  
§ 1.  
Board of civil engineers or supervisors, how constituted.

##### SALARY AND FEES.

SEC. 3706. . . . the Railroad Commissioners, each, three thousand dollars.

G. S. 1875, 173,  
ch. 2.  
Railroad Com-

missioners.  
1885, ch. 119.  
Chief clerks.

1889, ch. 8.  
State salaries  
when payable.

The chief clerks of the . . . . Railroad Commissioners, . . . . each eighteen hundred dollars.

SEC. 1. The salaries of the members of the General Assembly shall be paid at the close of its regular session; and all annual and per diem salaries shall be paid on the first day of the month succeeding that in which the services were rendered; *provided*, that when said first day shall fall on Sunday or a holiday, such salaries shall be paid on the succeeding day.

#### TAXATION.

G. S. 1875, 154,  
§ 12.  
Property ex-  
empt from  
taxation.  
Certain railroad  
bonds.

SEC. 3820. The following property shall be exempt from taxation: . . . bonds in the hands of the holders thereof, issued by any town or city in aid of the construction of the railroads of the Connecticut Western Railroad Company, the New Haven, Middletown & Willimantic Railroad Company, the Shepaug Valley Railroad Company, the Connecticut Valley Railroad Company, the Connecticut Central Railroad Company, or either of them, to provide or raise money to pay for stock subscribed for by it in any of said companies; but such bonds or stock, when their avails shall have been expended in the construction of any of said railroads, shall be assessed and taxed in the manner provided in section 3920.

1889, ch. 227.  
New issue of  
municipal  
bonds when ex-  
empt from taxa-  
tion.

SEC. 1. When any town or city in this State has issued or shall issue new bonds under or by virtue of any statute, public or private, for the purpose of redeeming or providing a fund to redeem its bonds originally issued in aid of the construction of any railroad, and which by the statutes of this State were exempt from taxation, or for redeeming or providing a fund to redeem any re-issue of the same, such new bonds, and the amount invested therein, shall be exempt from taxation in the hands of the holders thereof in the same manner and to the same extent as the original bonds, and the amount invested therein, and no direct, indirect, or franchise tax shall be assessed thereon.

G. S. 1875, 115,  
§ 16.  
Property taxed  
out of this  
State, exempt.

SEC. 3830. The list of any person need not include any property situated in another State, when it can be made satisfactorily to appear to the assessors that the same is fully assessed and taxed in such State, to the same extent as other like property, owned by its citizens; but the provisions of this section shall not apply to moneys loaned by residents of this State to any party



out of this State, as money at interest; nor to bonds issued by, or loans made to, any railroad company, located out of this State, when such bonds are owned, and loans made, by residents of this State.

SEC. 3835. Every dwelling-house belonging to any railroad company shall be set in the list, and be liable to taxation, in the town where said dwelling-house is situated, notwithstanding the fact that the same may be rented to, or occupied by an employe of said railroad company, and the amount paid for taxes on any such dwelling-house or houses shall be deducted from the sum required by law to be paid by such railroad company for taxes to the State.

1887, ch. 54.  
Taxation of  
dwelling-  
houses belong-  
ing to railroad  
companies.

SEC. 3919. The secretary or treasurer of every railroad company, any portion of whose road is in this State, or if such portion of said road is in the hands of a trustee or receiver, then such trustee or receiver shall, on or before the fifteenth day of November, annually, deliver to the Comptroller a sworn statement of the condition and affairs of said company or road as they existed on the thirtieth day of the preceding September, in the following particulars, namely, the number of shares of its stock, and if the same consists of different classes, then of those of each class, and the market value of each share; the dividends paid per share on each class of said stock during the year preceding said thirtieth day of September, and the dates of said payments; the amount of its funded and floating debt, and the market value of any of such indebtedness which is below par in value; the number, amount, and market value of any unpaid bonds secured by mortgage on the property of said company by any of its predecessors in title and legally convertible into the capital stock of such company; the amount of bonds issued by any town or city of the description mentioned in section 3820, when the avails of such bonds, or stock subscribed and paid for therewith, shall have been expended in such construction; the amount of money actually on hand in cash in the treasury or in the possession of the proper officers or agents of the company or of any such trustee or receiver; the amount paid for taxes in this State during the year ending on said thirtieth day of September upon any real estate owned by said company, trustee, or receiver, and not used for railroad purposes; the whole length of the road, and the length of those portions thereof lying without this State.

G. S. 1875, 168,  
§ 5.  
1876, ch. 81.  
1882, ch. 69, 139.  
1887, ch. 117, § 1.  
Returns by  
railroad  
companies.  
48 Conn., 44.

SEC. 3920. Every such railroad company, trustee, or receiver shall, on or before the twenty-fifth day of

G. S. 1875, 168,  
§ 6.  
1876, ch. 9.

1882, ch. 69.  
1887, ch. 117, §2.  
Amount of  
tax to be paid  
by railroad  
companies.  
36 Conn., 265.  
40 Conn., 496.

November, annually, pay to the State one per cent. of the valuation, made and corrected by the Board of Equalization, of said stock, and one per cent. of the par value of such funded and floating indebtedness, as required to be contained in said statement, or, if any of said indebtedness is worth less than par, then one per cent. of its valuation made and corrected by said board, after deducting from such valuations the amount of any bonds or other obligations of said company, or of their market value, if below par, which may be held in trust for said company as a part of any sinking fund belonging to it, and also deducting from said sum required to be paid, the amount paid for taxes in this State during the year upon any real estate owned by said company, trustee, or receiver, and not used for railroad purposes; and the valuation so made and corrected by said board shall be the measure of value of such railroad, its rights, franchises, and property in this State for purposes of taxation; and this sum shall be in lieu of all other taxes on its franchises, funded and floating debt, and railroad property in this State.

G. S. 1875, 168,  
§ 7.  
1882, ch. 69.  
When only part  
of the railroad  
lies in this  
State.

SEC. 3921. When only part of a railroad lies in this State, the company owning such road shall pay one per cent. on such proportion of the above named valuation as the length of its road lying in this State bears to the entire length of said road. But in fixing the aforesaid valuation and lengths, neither the value nor length of any branch thereof in this State, which the Board of Equalization shall determine to be of less value per mile than one-fourth of the average value per mile of the trunk road, shall be included; but every such branch shall be estimated at its true and just value by the Board of Equalization, and such railroad company shall pay to the Treasurer of this State one per cent. on such value at the time fixed in the preceding section for the payment of other railroad taxes, and when any such sum becomes due, and such company shall not then have the management and control of its road, or the road bearing its name, the person or corporation then owning or managing such railroad shall pay such sum to the State within the time above prescribed.

G. S. 1875, 169,  
§ 8.  
Lessee of  
railroad may  
deduct taxes  
from rent.

SEC. 3922. The taxes paid by the lessee of any railroad, under any contract or lease, existing on the tenth day of July, 1862, may be deducted from any payments due or to become due to the lessor, on account of such contract or lease.

1881, ch. 153.  
Where railroad  
company leases

SEC. 3923. Every railroad company in this State, which holds by lease or otherwise a railroad in another

State, which is not a part of its own road, shall state in its annual return for the purposes of taxation how much of its funded and floating debt was occasioned by, and how much of its capital stock was issued for any amount which has been expended by it in the construction or permanent improvement of such railroad in another State, or in the purchase of equipment for exclusive use thereon; and in computing the amount of tax to be paid by said company to this State, the amount of such funded or floating debt and of such stock so occasioned or issued as aforesaid shall be first deducted from the total amount of its funded and floating debt and stock.

SEC. 3924. The mortgagees or trustees of any railroad lying in whole or in part in this State, who have, or shall hereafter come into possession of the same by virtue of any mortgage thereof, shall, within the first ten days of October, annually, so long as they remain in possession of said railroad, deliver to the Comptroller a sworn statement of the value of said road, its equipment and other property, located in this State, and in their hands, as such mortgagees or trustees.

SEC. 3925. Said mortgagees or trustees shall, on or before the twentieth day of October in each year, or as soon thereafter as the earnings of said road or other moneys in their hands will allow, pay to the State a sum equal to one per cent. on the value of said road, equipment and other property, less the amount of taxes paid by them on any real estate in their hands not used for railroad purposes.

SEC. 3926. In all cases in which the road and estate of any railroad company shall have been, or shall hereafter be, foreclosed under any mortgage executed by it for the security of its creditors, and any other railroad company shall have or shall hereafter become, by purchase or otherwise, the owner of said road and estate so foreclosed, said company shall make the returns and payments required by this chapter, and any funded or floating indebtedness to which such railroad and estate is liable shall be considered, for the purpose of this enactment, as the indebtedness of said company, whether the same may have been contracted by it, or by some predecessor in its title.

SEC. 3927. Any and all taxes which shall become due to the State from any railroad company, or from the mortgagees or trustees of any railroad, under the provisions of this chapter, shall be and remain a lien on the road and property on account of which said tax is imposed,

a railroad in  
another State.

1875, ch. 61.  
Trustees in  
possession of  
mortgaged  
railroad to  
make annual  
returns.

1875, ch. 61.  
Tax on railroad  
mortgagees or  
trustees.

1875, ch. 61.  
Returns and  
payments when  
other railroad  
company  
purchases.

1875, ch. 61, 83.  
Taxes to be  
liens.

1887, ch. 117.  
Market value of  
stocks, how  
determined in  
certain cases.

When deter-  
mined must be  
adopted and  
conformed to  
except when.

In all other  
cases market  
value, how  
determined.

Where market  
value cannot be  
fixed, how  
returned.

Valuation, how  
determined.

until the same shall be paid, and shall take precedence of any and all other incumbrances and liens whatever.

SEC. 3931. In case of any railroad company, which, during the two years ending on the thirtieth day of September next preceding the time for making such annual returns, has paid regular dividends at the same annual rate per cent. on all or any class of its shares of stock, the market value of each share of such stock or class stock, as the case may be, for the purposes of the returns so to be made as aforesaid, shall be and the same is hereby declared to be the average of the closing bids or prices offered for said stock or any shares thereof during the month of September preceding the time for making such returns, as regularly published by any board of brokers, such board being named in said returns; and every party whose duty it is to make such returns shall adopt, in making the same, such average price as the invariable standard of said market value, and the Board of Equalization in examining and correcting said returns and in making out the statements required to be made, as the case may be, shall conform to and adopt such valuation, unless they shall be of the opinion that the interests of the State require that the market value of said stock shall be otherwise ascertained, in which case they may find, upon the best information which they can obtain, and fix a different valuation. As to all other shares of stock in any railroad company, the market value thereof shall be ascertained and returned, as far as possible, in the same manner as is hereinbefore provided for the shares of stock upon which regular dividends have been paid as aforesaid, but in such returns any facts may be stated showing that such market value differs from the true value, and the Board of Equalization, in examining and correcting said returns and in making out the statements required to be made, shall regard said market value, if it can be so ascertained, as the proper standard of the value of such shares, unless from the facts stated, or from other information, they shall think it proper to adopt a different valuation, which they in such cases may do. In all cases where for any reason it is not possible or feasible to fix or ascertain the market value for any stock in the manner aforesaid, it shall be returned by the party whose duty it is to make such return, at the price of the last reported market sale of said stock, and in such cases the Board of Equalization may, in correcting said returns, and making out any statements so required to be made, fix and determine, according to the best information which



they can obtain, any valuation for said stock which they may think proper.

SEC. 1379. No suit for any forfeiture, upon any Forfeitures, penal statute, shall be brought, but within one year next after the commission of the offense.

## AN ACT CONCERNING STREET RAILWAYS.

[1893, Chapter 169.]

SECTION 1. Sections 3595, 3596, 3597, and 3605 of Repeal. the general statutes are hereby repealed.

SEC. 2. Whenever any railway company shall have been chartered by the general assembly of this state for the purpose of operating street railways in any town, city, or borough, or whenever any such corporation already organized has been, or shall be given, the right to lay additional tracks in any such town, city, or borough, or whenever any street railway company shall desire to change its motive power, before such company shall proceed to construct such railway, lay additional tracks, or change its motive power, it shall cause a plan to be made showing the highway or highways, street or streets, in and through which it proposes to lay its tracks, the location of the same as to grade and to the center line of said streets or highways, such change or changes, if any, as are proposed to be made in any street or highway, the kind and quality of track to be used and the method of laying the same, the motive power to be used in propelling its cars, and the method and manner of applying the same, which said plan shall be presented to the mayor and court of common council of any such city, the selectmen of any such town, or the warden and burgesses of any such borough, within their respective jurisdictions, who shall thereupon, upon public notice, proceed to a hearing of all persons interested therein, and after such hearings, may accept and adopt such plan, or make such modifications therein, as to them shall seem proper, and shall, within sixty days after the presentation of such plan to the local authorities, notify said company in writing of their decision thereon, and of such modifications therein as they may deem proper. The refusal or neglect of any such local authority to notify said company of its decision within said period of sixty days as aforesaid shall be deemed to be a refusal to approve and accept said plan as presented by said company. Nothing in this act shall be construed so as to prevent such street railway

Incorporated street railway company before proceeding to construct, to lay additional tracks or to change motive power, shall cause plan to be presented

Hearing on plan.

Notification of decision.

company from presenting to such local authorities a plan or plans as heretofore provided, until said street railway company and local authorities shall agree upon the same, and no such company shall construct such railway, lay additional tracks, or change its motive power except in accordance with a plan approved by the authorities aforesaid.

Who has direction over locating tracks, etc.

SEC. 3. The selectmen of any town, the mayor and common council of any city, and the warden and burgesses of any borough, shall within their respective jurisdictions, have exclusive direction over the placing or locating of any tracks, wires, conductors, fixtures, structures of any such railway permanently located in the streets or highways, including the relocating or removal of the same, or changes in the grade thereof, and for the purposes of any public improvement and including the power of designating the material, quality, and finish thereof, may make all orders necessary to the exercise of such power of direction and control, which orders shall be in writing, and recorded in the minutes and records of their respective municipalities. Every such railway company shall, at its own expense, comply with and carry out such orders forthwith, and, in case of its failure so to do, such town, city, or borough may carry out said orders and recover the expense thereof from such company in an action on this statute; or may proceed by a writ of mandamus to compel such railway company, at its own expense, to comply with and carry out such orders; *provided, however*, that except in the case of bridges, terminals, curves in turning from one street to another, and turnouts and switches not exceeding one hundred and fifty feet in length, the wrought part of any street or highway made suitable for travel shall nowhere be of a width less than eight feet on each side of the street railway tracks, measuring from the outer rails where the said tracks are located in the center of the street or highway, and not less than twelve feet in width, measuring from the rail nearest the wrought part of the highway, where said street railway track or tracks are located on the side of the street or highway, unless permission is obtained from the superior court or a judge thereof; *and provided further*, that nothing herein contained shall be construed as requiring any such railway company to change the grade of any portion of the street or highway upon which its track is located, after such location; but whenever any such town, city, or borough shall change the grade of any such street or highway, such railway company shall temporarily remove its tracks for the purpose of such change, and when such change has

been completed, such company shall conform the grade of its tracks to the newly established grade without cost or expense to such town, city, or borough.

SEC. 4. In case any street railway company char-  
tered prior to the first day of January, 1893, shall not  
construct and complete its road in any of the streets or  
highways, in which it shall thereby be authorized to  
construct its railway, on or before the close of the  
regular session of the general assembly to be held in  
1895; and in case any street railway company which  
shall be chartered after the first day of January, 1893,  
or whose charter shall be thereafter amended, shall not  
construct and complete its road in any of the streets or  
highways in which it shall be thereby authorized to  
construct a railway on or before the close of the second  
regular session of the general assembly, after that in  
which said charter has been granted or amended, all  
right of said company to lay its tracks in all such streets  
or highways or portions of streets or highways specified  
in such charter or in such amendment, in which it shall  
not have laid down its tracks, shall thereupon cease;  
*provided, however,* that the right in any street, or high-  
way, or portion of street, or highway of any street rail-  
way company under any charter or amendment thereto  
granted prior to the first day of January, 1893, which  
company shall have heretofore constructed a part of its  
railway, shall not cease if said company shall construct  
its railway within two years after the municipal author-  
ities in the town, city, or borough in which said street  
or highway is located shall have notified such company  
to construct its railway in said street or highway.

Rights of cer-  
tain companies  
to lay tracks to  
cease, when.

SEC. 5. If any street railway company shall discon-  
tinue the operation of its railway in any street or high-  
way, or portion of a street or highway, or, having con-  
structed its railway thereon, shall not begin to operate  
the same within a reasonable time thereafter, the mayor  
and court of common council of any city, the selectmen  
of any town, or the warden and burgesses of any bor-  
ough, within whose respective jurisdictions such dis-  
continuance or failure to operate said railway may  
occur, may order said company, in writing, to operate  
said part or parts of its railway within thirty days from  
a date named in such notice, and on failure to comply  
with said order, all right of said company to occupy  
such street or highway or portion of such street or  
highway, or to keep, maintain, or operate its said rail-  
way within such street or highway, or portion thereof,  
shall cease; and said company shall immediately there-

Effect of dis-  
continuance of  
operation of  
railway.

after remove its tracks and fixtures from such street or highway, and put such street or highway, or portion thereof, in good condition for public travel. In case said company shall fail to remove said track and fixtures, or portion thereof, and to put such street or highway, or portion thereof, in good condition for public travel, said town, city, or borough may cause such track and fixtures to be removed, and such streets or highways to be put in good condition for public travel, and may recover the expense thereof from said company in an action on this statute.

Duty of company as to repair of streets.

SEC. 6. It shall be the duty of every street railway company to keep so much of the street or highway as is included within its tracks, and a space of two feet on the outer side of the outer rails thereof in repair, to the satisfaction of the authorities of the city, town, or borough which is bound by law to maintain such street or highway. But such authority shall not order said street railway company to use any better or more expensive kind of pavement or material for that part of the street or highway which it is the duty of such railway company to keep in repair, than is used by the town, city, or borough upon the remaining width of the street or highway, except for a space of one foot on each side of each rail, unless such better or more expensive kind of pavement or material was required in the order permitting the original location and layout of such railway on such street or highway. Every such municipal authority shall keep a record of all orders as to such repairs, shall serve a copy thereof upon the railway company, and such order shall state the time within which repairs are to be completed, which time shall not be less than thirty days from the service thereof; and upon failure upon the part of the company to make the required repairs within the time fixed by the order, such repairs may be made by the municipal authorities interested, and the expense thereof recovered from the railway company in an action upon this statute.

Transportation of merchandise.

SEC. 7. Every street railway company may transport both persons and property, but in the transportation of any merchandise other than such small packages or bundles as are carried by its passengers, shall be subject at all times to such regulations as may be prescribed from time to time by the superior court or by any judge thereof, upon the application of such street railway company, or of any person interested in any manner in such transportation, or by any town, city, or borough in which such street railway is located, upon such notice



as said court or said judge shall deem reasonable; and any orders made by any such court or judge may extend to and control such traffic over the whole line of such street railway company, whether the same be in one county or in more, or such order may be confined to any part of such railway in the discretion of such court or judge, and any order so made may, upon a subsequent application by such company, or any person interested, or by any town, city, or borough, be modified or rescinded by such superior court, or by any judge thereof, upon such notice as such court or judge may direct.

SEC. 8. No street railway shall hereafter be built or extended from one town to any other town in the public highways, so as to parallel any other street railway or steam railroad, unless authorized by special charter prior to January 1, 1893, until the company desiring to build, construct, or extend such railway shall have applied to the superior court or any judge thereof, and shall have obtained from such court or such judge, in the manner hereinafter required and provided, a finding that public convenience and necessity require the construction of such street railway. Any street railway company intending to build, construct, or extend any such railway shall make an application to such superior court or such judge for a finding that public convenience and necessity require the construction of such railway; and such superior court or such judge shall thereupon fix a time and place to hear said application, and shall cause notice to be served upon any steam railroad company or companies, and upon any street railway company or companies that may be affected by the construction of such road, and upon the selectmen of any town, the warden and burgesses of any borough, or the mayor of any city, within whose limits such railway may be built. Said superior court or such judge shall have power to hear the parties and determine whether public convenience and necessity require the construction of such street railway, and the decision of said court or judge shall be final and conclusive upon the parties. Such court or judge upon such hearing may make an order or finding of public convenience and necessity for the construction of such street railway for a part of the distance applied for, if said court or judge shall find public convenience and necessity require the construction of a part only of such street railway.

SEC. 9. Any person injured in person or property by reason of any defect in that part of the street or Street railway not to parallel other railroad unless. Damage caused by defect in street which

company should keep in repair. highway which any street railway company is bound by law to keep in repair, may bring his action therefor against both such company and the town, city, or borough which is bound by law to keep said street or highway in repair, and any judgment recovered in such action shall run against both of such defendants. Said railway company shall, however, pay such judgment and save the other defendant harmless therefrom, unless the court, or, if the case is tried to the jury the jury, before whom the action is tried, shall find that such defect was due in whole, or in part, to the negligence of such city, town, or borough, in which case the court or the jury, as the case may be, shall find and adjudge how much of the judgment shall be paid by the municipality without reimbursement from the railway company. The fact that the railway company has kept its said part of the street or highway in repair to the satisfaction of the municipal authority shall not operate to shift the responsibility for injuries occurring by reason of defects therein, from the railway company to the municipality.

Towns not  
liable unless.

SEC. 10. Such town, city, or borough shall not be liable for the payment of any judgment which, under the preceding section, is to be paid by the railway company, and as to which the railway company is to save the said town, city, or borough harmless, unless within sixty days after the rendition of final judgment, demand shall be made upon such town, city, or borough for such payment upon a lawful execution, duly issued in said action. If any town, city, or borough shall be compelled to pay any portion of any judgment which, under the preceding section, should have been paid by the railway company, the first selectman of such town, the mayor of such city, or the warden of such borough, shall make, and, within thirty days after such payment, file for record in the office of the town clerk of the town within which such street or highway is situated, a certificate showing the court before which such judgment was rendered, the date of such judgment, the amount paid by such town, city, or borough, and that said town, city, or borough claims a lien upon the tracks, fixtures, and other property of such railway company situated in said town, city, or borough, for the payment of such sum with lawful interest from the date of such payment; and the same shall thereupon be and become a lien upon all the tracks, fixtures, and property of such company situate in such town, city, or borough, which shall take precedence of all other incum-

branches, and may be enforced and collected in the same manner as tax liens.

SEC. 11. The town, city, and borough authorities aforesaid, within their respective jurisdictions, may revise and change any orders made by them under sections two and three of this act; but if the street railway company affected thereby has already carried out, or begun to carry out, or incurred expense in preparation for the carrying out of such original order, such street railway company may appeal from any such alteration, revision, or change, within thirty days from the service of notice upon them of the passage of such order revising or changing such former order, to the superior court, or a judge thereof; and such appeal shall be tried by said court or judge, or by a committee of three disinterested persons appointed for that purpose by said court or judge, and such court or judge may make such orders as may be deemed equitable in the premises. But such street railway company shall not have any right of appeal from an order made under section six of this act, nor from any order made by said municipal authorities, in any case where such order is not, in terms or effect, a change of a previous order which has been executed, or partly executed, or in view of which such street railway company has incurred expense in preparing to execute.

SEC. 12. Wherever the word "street" or "highway" is used in this act, it shall include all bridges. "Street" includes bridges.

SEC. 13. The selectmen of any town, the mayor and common council of any city, or the warden and burgesses of any borough, within their respective jurisdictions, shall have power to pass suitable regulations relating to the speed at which any such street railway company may run its cars, and may alter and amend the same at pleasure, and from such alterations or orders there shall be no appeal; *provided, however*, that none of such authorities shall, by such regulations, authorize or permit such cars to be run upon any street or highway at any greater rate of speed than fifteen miles per hour. The provisions of this act relating to the operation, construction, maintenance, and repair of street railways shall apply only to such portions of said railways as are constructed over, upon, or through any street or highway.

SEC. 14. All street railway companies or trustees operating street railways within this state, shall, on or before the first day of October, 1894, and annually thereafter, make a return to the railroad commissioners in such form as said railroad commissioners shall pre-

Alteration of orders made by authority of town, etc.

Regulations as to speed.

Annual report of street railway companies.

scribe, which form shall substantially follow the requirements of section 3586 of the general statutes in so far as they are applicable to the business and affairs of street railways, with such additional matters as shall render said returns as complete, as to the business, property, and affairs of street railways, as were required from steam railroads under said section 3586, which said returns shall be signed and sworn to by the president and treasurer of the company, or by a majority of the trustees making the same. And the railroad commissioners shall annually, on or before the first day of August, furnish to the officers or trustees of every street railway company blank forms which shall conform to the requirements of this section. The provisions of sections 3589 and 3590 of the general statutes shall apply to street railways. Every company, whose president and treasurer or trustees shall refuse or neglect to make such returns, shall forfeit to the state twenty-five dollars for each day of such neglect or refusal, and said commissioners shall report such forfeiture to the treasurer, and the books of every railway company shall at all times be open to the inspection of any committee of the general assembly appointed for that purpose.

Issue of bonds  
by street rail-  
way company.

SEC. 15. Every street railway company may borrow money, and may secure the repayment of the same by its bonds, signed by its president and by its treasurer; and, before being issued, said bonds shall be registered in the office of the comptroller, and a certificate thereof shall appear on the face of each bond; and the comptroller shall cancel any bonds so registered which may be brought to him for that purpose, and enter said act of canceling in his register; but no street railway company shall issue any bonds of a less denomination than one hundred dollars, nor for bonds outstanding at any one time to a greater amount than seventy-five per centum of the actual cost of the construction and equipment of said railway, which actual cost its president, treasurer, and a civil engineer approved by the comptroller, shall certify under oath has been actually expended in the construction and equipment of its railway, and any false swearing in the matter shall be perjury. The comptroller shall not permit the bonds of any street railway company registered in his office to exceed the amount limited in this act. No street railway company, unless specially authorized by the general assembly, shall issue bonds except in accordance with the provisions of this act. All such bonds, issued under the provisions of this section, may be secured by a mortgage



of the property of the company issuing the same by a deed duly executed by its president under corporate seal, to the treasurer of the state and his successors in office, for the holders of said bonds, and recorded in the office of the secretary of state; and such mortgage shall equally secure all such bonds as may be issued from time to time to the full amount specified in said mortgage. The provisions of Chapter CCXVIII of the general statutes, concerning the foreclosure of mortgage of railroad companies, shall apply to any mortgages or bonds issued by street railway companies.

SEC. 16. The superior court or any judge thereof shall have power, in its or his discretion, whenever public convenience and necessity require, upon application of any street railway company, to authorize such company to run its cars over the track or tracks of any other street railway company for a distance not exceeding one-half mile, where two or more railway companies are operating in the same city or town, except where the only approach to any city or town upon a particular side thereof is by means of a bridge or causeway, or by means of a bridge and causeway of a greater length than said distance of one-half mile; and in such cases the superior court or any judge thereof may authorize any suburban road approaching such city or town upon such side of said city or town to use the track or tracks of any other road crossing such bridge and causeway, from the place where such roads meet to some central point in such city or town; *provided*, the length of track so used does not exceed the length of track actually owned and operated by such suburban roads, upon such terms as to manner of use, and upon the payment of such compensation therefor, as may be ordered and prescribed by said superior court or said judge, with power to change, modify, and revoke such order upon the application of either company.

Running track of one street railway over another.

SEC. 17. This act shall take effect upon its passage, and be deemed an amendment to the charters of all existing railway companies operating cars by motive power other than that furnished by locomotives, dummies, or box engines used on steam railroads, and an amendment to the charters of all existing municipal corporations. All such railway companies and all municipal corporations hereafter chartered shall be subject to the provisions of this act, and all acts or parts of acts inconsistent herewith are hereby repealed. All existing statutory provisions relating to horse railroads and horse railroad companies not inconsistent

Effect of this act on existing charters.

with this act, shall be construed to include all street railways and street railway companies of every kind and description, irrespective of the motive power used in operating the same.

Directors to be residents of this state.

SEC. 18. A majority of the directors of all companies hereafter operating street railways in this state shall be residents of this state.

### AN ACT CONCERNING RETURNS OF STREET RAILWAY COMPANIES.

[1893, Chapter CCXL.]

Street railway companies to bear proportion of expense of railroad commissioners' office.

The additional printing, office and incidental expenses of the railroad commissioners imposed upon them by an act concerning street railways (public acts of 1893, Chapter CLXIX) passed at this session of the general assembly, the amount to be determined by the comptroller, shall be paid monthly from the treasury, and in July in each year, the whole amount so paid during the year ending the fourth day of July shall be apportioned by the comptroller among the several street railway companies, in proportion to the length of the tracks of their respective railways, and each company and the trustees, assignees, lessees, or other parties operating any such railway shall pay the treasurer their proportion of such amount.

### AN ACT CONCERNING THE TAXATION OF STREET RAILWAYS.

[1893, Chapter 209.]

Taxation of street railways.

The existing statutes with regard to the taxation of railroads shall be deemed to apply and extend to, and shall include all street railways of every description.

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EIGHTH ANNUAL REPORT

OF THE

BUREAU OF LABOR STATISTICS

OF THE

STATE OF CONNECTICUT,

FOR THE

YEAR ENDING NOVEMBER 30, 1892.

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STATISTICS OF MANUFACTURES.

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## EXPLANATORY.

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The material for the Eighth Annual Report of this Bureau was collected under the supervision of Mr. Samuel M. Hotchkiss. When he retired from the office of Commissioner of the Bureau, the compilation was nearly completed. The work was finished according to his plan and the most interesting conclusions reached as a result of his investigation are herewith presented as the report of the Bureau for 1892. In order that this report might not follow that of 1891 too closely, it was decided to print it in the volume containing the Ninth Report.

ROBERT J. VANCE,  
*Commissioner.*

GEORGE E. BEARN,  
*Clerk.*





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# ANALYSIS OF MANUFACTURING STATISTICS.

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## ANALYSIS OF MANUFACTURING STATISTICS.

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The investigation relating to manufactures, capital, wages and profits, begun by the Bureau in 1888, and continued annually thereafter, was pursued in 1892, the figures obtained being those of the business of the preceding fiscal year, 1891. There was an increase over the preceding year, in the number of establishments making reports to the Bureau, of seventy. The total number reporting was 861. The classification by industries remains the same as in the previous report. The manner of presentation is also much the same, except for the analysis of five year figures, which it is now possible to make, and of which more will be said in later pages.

### INCREASED BUSINESS.

The comparative showing of the summaries of same establishments reporting each year indicates a yearly increase in capital, in product, in total wages paid and in total net profits, except for the same eighty-five establishments which, in the last year reporting, did an increase of business at a proportionately smaller return of net profit.

### PERCENTAGES OF SAME ESTABLISHMENTS.

The percentages of the same 624 establishments, reporting for three years, show a slight though constant increase in net profits on capital, a considerable increase in net profits on product, an increase in 1891 as compared with 1889, but a slight decrease as compared with 1890 in the proportion which the cost of stock and material bears to the cost of product; and a constant decrease in the labor cost.

For the same 238 establishments, reporting for four consecutive years, the percentages show a constant increase of net profits on capital and on product, except for a decrease in 1889; a constant increase in the proportion which the cost of material bears to the cost of product; and a constant decrease in labor cost except for a slight rise in 1889.

The percentages of the same eighty-five establishments, reporting for five consecutive years, show an increase in the net profits on capital and on product for the first four years, and a decrease in 1891; an increase of, though not a constant one, in the proportion which the cost of material bears to the cost of product, from 57.58 in 1887 to 57.31 in 1888, 58.04 in 1889, 60.34 in 1890 and 59.96 in 1891; and a constant decrease in labor cost, broken by a slight increase in 1889 as compared with 1888.



## SUMMARY OF MANUFACTURES—COMPARATIVE SHOWING.

	Same 85 Establish- ments, 1891.	Same 85 Establish- ments, 1890.	Same 85 Establish- ments, 1889.	Same 85 Establish- ments, 1888.	Same 85 Establish- ments, 1887.
Capital, . . .	\$53,718,737.24	\$52,434,837.92	\$49,853,693.54	\$49,112,149.58	\$45,664,192.16
Value of goods manufactured, }	54,462,403.90	53,929,659.49	46,773,748.86	45,764,380.24	43,048,192.80
Stock and ma- terials, . . }	29,836,743.33	29,643,069.36	24,387,500.20	24,440,041.22	23,216,576.19
Cost of man- ufacture (less rent, interest, and taxes), }	19,013,366.54	18,564,351.22	17,751,211.65	17,186,394.08	16,272,645.29
Rent, interest, and taxes, . }	912,008.64	919,646.60	872,344.26	840,082.95	827,665.64
Net profits, . .	4,700,285.39	4,802,592.31	3,762,692.75	3,297,861.99	2,731,305.68
Wages, . . .	13,869,998.89	13,846,265.32	12,742,126.17	12,032,412.95	11,677,894.90

## SUMMARY OF MANUFACTURES—COMPARATIVE SHOWING.

	Same 238 Establish- ments, 1891.	Same 238 Establish- ments, 1890.	Same 238 Establish- ments, 1889.	Same 238 Establish- ments, 1888.
Capital, . . . . .	\$ 94,357,893.09	\$90,552,293.95	\$87,606,147.03	\$85,563,522.26
Value of goods manufac- tured, . . . . . }	101,431,315.40	95,910,083.15	88,572,332.01	85,549,133.43
Stock and materials, . .	54,867,132.20	51,860,164.51	47,855,366.79	45,170,408.47
Cost of manufacture (less rent, interest, and taxes), }	35,338,201.38	33,608,897.62	32,508,441.22	31,469,292.93
Rent, interest, and taxes, .	1,958,929.61	1,871,530.58	1,706,965.10	1,681,270.52
Net profits, . . . .	9,267,052.21	8,569,490.44	6,501,558.90	7,228,161.51
Wages, . . . . .	25,593,595.97	25,371,041.52	23,611,359.95	22,305,904.66

## SUMMARY OF MANUFACTURES—COMPARATIVE SHOWING.

	Same 624 Establish- ments, 1891.	Same 624 Establish- ments, 1890.	Same 624 Establish- ments, 1889.
Capital, . . . . .	\$123,578,475.69	\$117,711,059.25	\$115,432,115.13
Value of goods manufactured, . .	141,141,997.61	135,715,380.98	124,701,357.88
Stock and materials, . . . . .	76,065,678.63	73,859,614.66	66,768,403.20
Cost of manufacture (less rent, in- terest, and taxes), . . . . . }	49,117,376.57	47,162,124.23	45,154,687.56
Rent, interest, and taxes, . . . .	2,819,470.82	2,729,128.39	2,353,095.09
Net profits, . . . . .	13,139,471.59	11,964,513.70	10,425,172.03
Wages, . . . . .	35,187,649.12	34,369,270.79	32,433,427.52

## CONDENSED SUMMARY FOR 1891.

A condensed summary of the business of the 861 establishments for 1891 is as follows :

Value of goods manufactured, . . . . .	\$167,388,909 51
Value of stock and materials, . . . . .	\$91,223,471 56
Cost of manufacture (less rent, interest and taxes), 58,634,396 94	
Rent, interest and taxes, . . . . .	3,283,731 17
Net profits, . . . . .	14,247,309 84 \$167,388,909 51

The following shows the percentage that the total footings of each of the above items bears to the total footing of the value of goods manufactured in the industries considered :

	1891. 40 lines, 861 estab- lishments.	1890. 40 lines, 792 estab- lishments.	1889. 40 lines, 636 estab- lishments.	1888. 22 lines, 241 estab- lishments.	1887. 22 lines, 90 estab- lishments.
Value of stock and ma- terials, . . . . . }	54.49	55.57	53.47	52.8	53.9
Cost of manufacture (less rent, interest, and taxes), }	35.03	33.86	36.22	36.8	37.9
Rent, interest, and taxes, .	1.96	1.98	1.9	1.9	1.9
Net profit of goods man- ufactured (not capital), }	8.52	8.57	8.4	8.4	6.3

The total capital employed was \$140,587,839.44. The total amount paid for labor in producing goods to the value of \$167,388,909.51 was \$42,387,285.84. The total number of hands employed was 96,772 not including officers, superintendents, clerks, book-keepers, salesmen and non-producers, all of which are classified in schedule under superintendence. The amount paid for wages is 27.68 per cent. of the cost of goods manufactured.

The value of stock and material is 59.57 per cent. of the cost of goods manufactured.

The number classified in superintendence is 5,205, which is 5.38 per cent. of the number of wage earners.

The cost of superintendence is 14.50 per cent. of the amount paid for wages, and 4.02 per cent. of the cost of the goods manufactured.

#### LABOR'S SHARE.

When the inquiry was begun in 1887, it was announced that it was undertaken in an attempt to obtain "information intended to throw light on the question of whether facts justify the belief of the laboring people that they are not receiving in wages a fair share of the product of their labor."

For this purpose data embracing a wider field and a longer term than five years would be desirable. But it has been thought advisable to make an analysis of the material in hand, in the line pointed out by the quotation above from the report of the Bureau for 1888.

It is impossible, of course, to determine absolutely whether workmen receive a fair share of the product into which their labor enters. To do that, it would first be essential to know what is labor's fair share. The answers to that would vary from that of the theorist who erroneously asserts that as labor creates all it should receive all, to that of the other and almost brutal economist who holds that labor should receive only what it needs for its sustenance. As a matter of fact, under present industrial conditions, labor receives what it is in a position to secure; and its demands are contingent upon the relation of production to consumption, upon the intelligence or the social conditions of the workers, and upon organization.

#### RELATION BETWEEN PROFITS AND WAGES.

The best that can be done with the material in hand is to attempt to show some of the relations between capital and labor, or between profits and wages; and to attempt to show also whether labor's

share of the joint product is increasing or decreasing, and whether the percentage of the return to capital would permit of a still larger share to labor.

This, like all inquiries of this character, is apt to lead the investigator into deep water. Consideration of the question whether capital's share would permit of a larger equitable share to labor, raises at once the further question, What is the fair measure of the return of capital? Answers to that question would differ. Regarding profit on investment as in the nature of interest, capital's return would be what its abundance or its scarcity would command. But profit is more than interest, as it is largely contingent upon skill in management, and exceptional skill always commands a high price.

Political economists differ as to whether "profit" should be inclusive or exclusive of a fair percentage of rent or interest on the investment. In this analysis "profit" is the difference between the cost and the selling price of the product, with no deduction for depreciation of plant, as there is no data on that phase of the subject.

#### THE PURCHASING POWER OF WAGES.

Entering also into the consideration of the value of the return to the workman, is the purchasing power of his wages. Wages, though remaining absolutely the same, may relatively rise or fall with the variation in the cost of the necessities of life. Here obtrudes still another question. "The necessities of life" is an indefinite or a broad term. A man's wants, it has been said, are measured by his ability to supply them. More than that, in the social progress of the race, what a man needs to hold his place in the procession is often more than he can supply. That explains why labor, though its condition, absolutely and relatively, has vastly improved, remains in a state of unrest—a condition, however, which insures progress.

#### THE RICARDO RULE.

The proposed method of treatment of the statistical data presupposes, to an extent, a reciprocal relation between wages and profits, under which one would fall as the other would rise. That, however, is not an economic rule, existing without exceptions. Conditions have changed since John Stuart Mill wrote his approval of the Ricardo rule "that the rate of profits can never be increased but by a fall in wages." Economy in production has resulted in a condition under which increased profits are often coincident with higher wages. In a profitable business there is more to divide.



Labor-saving machinery, the stimulus for the invention of which is higher labor-cost, is accompanied by higher wages. This appears paradoxical, but the explanation is that labor-saving machinery raises industrial efforts. Increased consumption, which follows higher wages, also has a compensating effect. A given unit of product being produced of better quality, cheaper, and with less labor has resulted in increased consumption, thus creating a demand which has operated to increase the number of workers and also the wages paid them.

Only in industries where the labor is all or largely handwork might the old rule be expected to hold good, that a larger share to labor necessitates a reduced share to capital.

#### TENDENCY TO AN INCREASED SHARE TO LABOR.

It is the general belief of economists, however, based on such investigations as have been made, that the tendency, in recent years, has been to an increased share of the joint product to labor and a reduced share to capital. Hon. David A. Wells (*Recent Economic Changes*, p. 86) says that :

“A reduction of profits is the necessary consequence of falling prices, since all the calculations, engagements and contracts of the employing classes, including wages, are based upon the expectation that the prices of their products will remain substantially unchanged, or no worse than before. If there is a progressive fall of prices, without a corresponding fall of wages, profits must fall progressively, and interest also, since the rate of interest is governed by the profits which can be made from the use of capital. Now this is exactly what has happened in recent years. Profits and prices of commodities have fallen, but wages have not fallen, except in a few special departments.”

Again (same work, p. 406 et seq.) Mr. Wells says that “the average rate of wages, or the share which the laborer receives of product, has within a comparatively recent period, and in almost all countries—certainly in all civilized countries—greatly increased.”

Mr. Wells supports this with the result of several inquiries, made in this country and elsewhere, and quotes the conclusion of Mr. Edward Atkinson (printed in the *Century Magazine*, 1887):

That the greatly increased products of the fields, forests, factories, and mines of the United States which has occurred during the period from 1860 to 1885, “must have been mostly consumed

by those who performed the actual work, because they constitute so large a proportion—substantially about ninety per cent.—of the whole number of persons by whom such products are consumed,” and that “no other evidence is needed to prove that the workingman and woman of the United States, in the strictest meaning of these words, are, decade by decade, securing to their own use and enjoyment an increasing share in a steadily increasing product.”

#### CAPITAL MORE ABUNDANT THAN LABOR.

These conclusions are in harmony with the generally accepted economic rule stated years ago by Bastiat, that “in proportion to the increase of capital, the relative share of the total product falling to the capitalist is diminished, while, on the contrary, the laborer’s share is relatively increased.” Product is capital, and the increased rapidity of production has made capital relatively more abundant than labor, and thus lessened the return for investment.

As high wages accompany improved methods of production, the lowest rate of wages is found, as a rule, where imperfect machinery is used, and where, as a consequence, the product is small and inferior.

#### COMPARISON WITH RESULTS SHOWN HERE.

It will be interesting now to see how the results shown by the inquiries of this Bureau compare with the conclusions drawn from data obtained along somewhat similar lines elsewhere. As said before, the material at the command of the Bureau is limited. Though during the last two or three years the inquiry has covered a wide range, both as to the industries represented and the number of manufacturing establishments reporting, the five years’ returns from the same establishments embrace only twenty-one industries and eighty-five establishments.

Comparison is also to be made of the annual returns from all establishments, in the same line of industry, as the liability to error is lessened when the number of establishments is increased; but as cotton duck was combined with cotton goods after the first year of inquiry; it was deemed advisable to drop that industry in the analysis, thus reducing the number of industries to be compared to twenty, and the number of same establishments reporting annually for five years to eighty-two.

First is drawn together in tabular form, for the purpose of ready comparison, the per cent. wages of cost of product, the per cent. net profit on product, and the per cent. net profit on capital, annually for the same eighty-two establishments, divided into twenty industries.

TABLE I.—VARIATION IN LABOR COST AND PROFIT

INDUSTRIES.		PER CENT. WAGES OF COST OF PRODUCT.					
		1887.	1888.	1889.	1890.	1891.	Average for 5 years.
1	Bakeries, . . . . .	13.52	11.82	12.96	13.09	12.59	12.80
2	Brass, . . . . .	23.86	22.09	21.06	18.68	18.52	20.84
3	Clocks, . . . . .	49.43	51.14	50.45	45.55	45.23	48.36
4	Corsets, . . . . .	27.34	32.12	32.12	31.46	31.35	30.88
5	Cotton, . . . . .	28.91	26.49	26.02	30.74	30.74	28.58
6	Cutlery, . . . . .	69.40	57.49	60.33	63.63	59.98	62.17
7	Forgings, . . . . .	33.77	38.34	39.17	37.13	38.36	37.35
8	General Hardware, . . . . .	39.04	40.02	40.47	45.27	43.89	41.74
9	Hats, . . . . .	35.42	37.28	40.89	39.44	41.34	38.87
10	Iron Foundries, . . . . .	42.58	35.43	34.70	33.32	32.25	35.64
11	Iron, Malleable, . . . . .	45.39	43.04	41.77	42.55	40.88	42.73
12	Knit Goods, . . . . .	36.05	39.70	40.62	39.12	38.72	38.84
13	Machine Shops, . . . . .	61.19	53.91	56.72	51.01	51.35	54.84
14	Paper Mills, . . . . .	18.61	19.88	23.95	24.10	24.07	22.12
15	Printing and Publishing, . . . . .	43.88	43.78	44.21	44.93	44.89	44.34
16	Rubber Goods, . . . . .	21.94	24.82	30.22	32.16	32.16	28.26
17	Shoes, . . . . .	27.93	28.49	29.92	30.06	30.19	29.32
18	Silk, . . . . .	24.67	21.65	21.50	22.34	22.11	22.45
19	Silver Plating, . . . . .	26.98	29.23	29.31	29.47	28.47	28.69
20	Woolen Goods, . . . . .	20.10	22.74	22.19	27.30	25.78	23.62



## —SAME EIGHTY-FIVE ESTABLISHMENTS.

PER CENT. NET PROFIT ON PRODUCT.						PER CENT. NET PROFIT ON CAPITAL.						
1887.	1888.	1889.	1890.	1891.	Average for 5 years.	1887.	1888.	1889.	1890.	1891.	Average for 5 years.	
8.50	9.24	8.16	8.48	8.57	8.59	16.82	15.51	14.79	16.97	16.59	16.14	1
5.20	5.17	5.22	5.24	6.22	5.41	6.29	6.09	7.57	9.51	11.11	8.11	2
5.90	2.53	2.94	4.22	6.75	4.47	5.31	1.73	2.09	3.23	5.31	3.53	3
4.80	6.20	6.23	7.56	7.26	6.41	9.78	16.04	15.40	18.33	17.46	15.40	4
12.40	10.14	9.58	15.99	16.38	12.90	6.72	5.43	5.19	9.07	9.26	7.13	5
6.80	4.13	12.47	8.27	7.55	7.84	6.08	2.78	10.41	8.44	8.21	7.18	6
15.10	10.29	19.62	20.81	19.99	17.16	11.11	7.94	20.05	25.22	23.10	17.48	7
1.30	3.84	5.91	11.12	5.97	5.63	1.21	3.86	5.13	9.89	5.02	5.02	8
1.50	4.69	6.18	3.55	4.64	4.11	3.87	11.39	14.26	10.13	12.18	10.37	9
6.00	13.00	13.85	11.42	12.10	11.27	6.78	15.64	15.17	13.24	14.14	12.99	10
6.20	5.38	6.59	5.28	6.18	5.93	9.09	7.34	13.00	7.10	8.22	8.95	11
12.70	16.78	14.01	15.33	15.85	14.93	11.75	14.51	10.66	14.71	15.46	13.42	12
13.80	16.01	18.01	18.72	18.41	16.99	6.71	8.68	10.68	12.28	11.97	10.06	13
8.20	10.92	16.43	15.52	20.30	14.27	7.36	10.23	15.59	13.13	17.68	12.80	14
14.40	7.78	20.84	16.48	17.24	15.35	9.16	3.80	12.89	9.00	9.53	8.88	15
5.80	.61	2.94	5.43	5.43	4.04	5.32	.48	1.72	3.54	3.54	2.92	16
4.00	3.97	6.77	6.61	6.56	5.58	9.36	9.49	14.15	14.92	15.00	12.58	17
9.10	11.41	11.99	12.34	10.30	11.03	7.68	10.55	12.68	13.94	9.99	10.97	18
7.20	2.65	9.29	11.52	11.28	8.39	6.71	7.77	6.94	8.77	8.98	7.83	19
Loss .20	4.83	4.21	5.53	3.14	3.50	Loss .17	4.73	4.27	4.91	2.91	3.33	20

## PROFITS AND LABOR COST.

A study of this table shows, during the five years, an upward tendency in the per cent. of profits on investment in fifteen of the twenty industries, and an upward tendency in the per cent. of labor cost (of the entire product) in thirteen industries; the upward tendency in the labor cost being coincident with the upward tendency of profit in ten industries, and the downward tendency of labor cost being coincident with the downward tendency of profit in two industries.

Comparing 1888 with 1887, there was an increased labor cost and an increased per cent. of profit in the same eight industries, and a decreased labor cost and a decreased profit in the same five industries. In 1889, increased labor cost was coincident with increased profit in nine industries, and decreased (or same) labor cost with decreased profit in four industries. In 1891, an increased (or same) labor cost was coincident with increased profit in three industries, a decreased labor cost with a decreased profit in six industries, and a same labor cost with a same profit in one industry.

The conclusion apparent from the foregoing (and one not exactly in harmony with conclusions obtained elsewhere), is that in the majority of the twenty industries under consideration, labor cost (or the return to labor) increased or decreased concurrently with the increase or decrease in the per cent. of net profits on capital.

Looking at the table further, it is seen that the tendency of the labor cost was upward in six industries in which the average profit on capital for the five years was over ten per cent., and in seven industries in which the average profit was less than ten per cent.; while the tendency of the labor cost was downward in four industries in which the average profit was over ten per cent., and in three in which the average profit was less than ten per cent. In a somewhat similar comparison by years, it appears that where a decrease in labor cost was coincident with an increased profit, the profit in a large majority of the cases was over ten per cent.; and that where an increase in labor cost was coincident with a decreased profit, the profit in a majority of cases was less than ten per cent.

## INDUSTRIES IN WHICH LABOR COST INCREASED.

Throughout the five years the labor cost increased generally in cotton goods, forgings, hardware, hats, knit goods, paper mills,

printing and publishing, rubber goods, shoes, silver plating and woolen goods. A different result is found in brass goods, clocks, corsets, cutlery and silk. In bakeries and iron foundries, where the work is, to a large extent, hand labor, there was a general or a constant decrease in the total labor cost.

#### INDUSTRIES IN WHICH PROFITS INCREASED.

The per cent. of profits on capital increased generally throughout the five years in brass goods, clocks, corsets, cutlery, forgings, hardware, hats, iron foundries, knit goods, machine shops, paper mills, rubber goods, shoes, silk and silver plating.

Generally increased profits was coincident with generally increased labor cost in forgings, hardware, hats, knit goods, paper mills, rubber goods, shoes and silver plating.

#### COINCIDENCE OF VARIATION IN LABOR COST AND PROFIT.

Only in the shoe industry was there a constant increase in labor cost and in per cent. of profit throughout the five years. In hardware there was a constant increase in labor cost and in per cent. of profit until 1891, and then a concurrent decrease in both. In rubber goods there was a constant increase in labor cost and profit since 1888; in paper mills a constant increase in labor cost and a general or average increase in profit; in silver plating a constant increase in labor cost until 1891 and a general increase in profit; in forgings, hats and knit goods a general increase in both labor cost and profits; in printing and publishing and in woolen goods a general increase in labor cost and a general decrease in profits; in brass goods and clocks a constant decrease in labor cost and a constant increase in profits since 1888; in machine shops and silks a general decrease in labor cost, and constant increase in profits up to 1891; in corsets a constant decrease in labor cost since 1888, and a general increase in profits; in iron foundries a constant decrease in labor cost and a general increase in profits; in bakeries and in malleable iron a general decrease in both labor cost and profits; in cutlery a general decrease in labor cost and a general increase in profits; in cotton goods a general increase in labor cost and a variable profit, increasing in 1890 and in 1891.

#### INCREASED PROFIT AND INCREASED LABOR COST.

The idea entertained in some quarters of an increased per cent.

of profit and a decreased labor cost, due to cheapness of production brought about by improved machinery and methods, would seem to be supported by the results here obtained in brass, clocks, machine shops, silk, corsets and cutlery; though contradicted by the evidence presented in shoes, hardware, rubber goods, paper mills, silver plating, hats, knit goods and cotton goods. The weight of the evidence is against the idea.

#### LABOR COST AND PROFIT ON PRODUCT.

A comparison of the labor cost with the per cent. of profit on product, not on capital (Tables XIII and XIV) shows much the same result as the foregoing. In 1888 the labor cost increased in eleven of the twenty industries, and the per cent. of profit on product increased in ten industries; increased labor cost being coincident with increased profit in six and decreased labor cost with decreased profit in five. In 1889 labor cost increased in twelve and profit in sixteen, there being a coincidence of increased labor cost with increased profit in ten and of decreased labor cost with decreased profit in three. In 1890 labor cost increased in twelve and profits in thirteen, the coincidence of increased labor cost and of increased profit appearing in seven and of decreased labor cost and decreased profit in two. In 1891 there was an increased, or the same labor cost in six and an increased or the same profit in eleven, the coincidence of increased labor cost with increased profit being found in only one, and of decreased labor cost with decreased profit in six. Comparing 1887 with 1891, labor cost increased in twelve and profit in eighteen, increased labor cost being coincident with increased profit in eleven, and decreased labor cost with decreased profit in one.

A somewhat different result is obtained by comparing the amount to the employe and the amount to the employer in the unit of product (Table XI). This is explained by the fact that the amount to the employe in this presentation is virtually a percentage of the value of the product, rather than of the cost, and such a comparison, of course, would be faulty.

#### AVERAGE WAGES.

The average wage (Table XI) is not a reliable or absolute statistical basis, particularly when it has to be presented without a proper



classification of labor. It is of interest to know, however, (still continuing an analysis of the same eighty-two establishments in twenty lines of industry) that in 1888 the average wage increased in ten of the twenty industries, in 1889 in fourteen, in 1890 in seven, in 1891 in fourteen, and from 1887 to 1891 in fourteen industries.

#### LABOR COST AND AVERAGE WAGES.

Increased labor cost was coincident in 1888 with increased average wage in five industries and decreased labor cost with decreased average wage in four. Like coincidences are found in 1889 in twelve industries, in 1890 in eleven, in 1891 in eight, and, comparing 1887 with 1891, in ten industries. There is no inconsistency in the concurrence of increased average wages with a decreased total labor cost, or vice versa. An increased product at a decreased labor cost, may result in an increased average wage to a decreased number of employes. That was the case in 1888 in brass, iron foundries, machine shops and silk. So, also, an increased product, at an increased labor cost, may result in a decreased average wage to an increased number of employes, where the ratio of increase in the number of employes does not correspond to the increase in the product. That was the case in 1888 in corsets, hardware and rubber goods.

Extending the comparison to all the establishments reporting annually, in the same twenty lines of industry, and, where results differ as between the same eighty-two establishments and all establishments reporting, giving the preference to the result shown by the larger number of establishments, a somewhat larger measure of concurrence between increased or decreased labor cost and increased or decreased average wage is found. In 1888 the coincidence is found in thirteen of the twenty industries, in 1889 in seven, in 1890 in twelve, in 1891 in thirteen, and from 1887 to 1891 in seven.

#### LABOR COST AND PROFITS IN ALL ESTABLISHMENTS.

Making a comparison of labor cost with profits in all of the establishments reporting it is found that in 1888 there was an increased per cent. of labor cost in seven industries, and an increased per cent. of net profit on product in twelve industries, the coincidence of increased or decreased labor cost with increased or decreased profit appearing in seven industries. In 1889 labor cost

increased in eleven and profits in thirteen, the coincidences numbering fourteen. In 1890 labor cost increased in seven and profits in twelve, the coincidences being nine. In 1891 labor cost increased in nine and profits in eleven, the coincidences being twelve. And from 1887 to 1891 labor cost increased in ten and profits in sixteen, the coincidences numbering twelve.

#### AVERAGE WAGES AND PRODUCT PER EMPLOYEE.

There is a closer relationship between the variation in average wage and the variation in product per employe, than between the variation in average wage and the variation in labor cost. Thus (Table XI) the amount of product per employe generally increased in bakeries, brass, clocks, cotton goods, cutlery, iron foundries, malleable iron, knit goods, machine shops, printing and publishing, silk and woolen goods; and generally decreased in corsets, forgings, hardware, hats, paper mills, rubber goods, shoes and silver plating. An increase in average wages accompanied an increased product per employe in eight industries—bakeries, clocks, cotton, cutlery, iron foundries, malleable iron, printing and publishing and woolen goods; while a decreased average wage accompanied a decreased product per employe in seven industries—corsets, forgings, hardware, hats, rubber goods, shoes and silver plating.

#### LABOR'S INCREASED SHARE.

Labor's increased share of an increased product per employe and decreased share of a decreased product per employe is quite apparent in this presentation. The lack of harmony between the variation in average wage and the variation in labor cost is not inconsistent with this showing, as the labor cost is the percentage of a product whose variation does not always correspond with the variation in the number of employes. A comparison of the labor cost per unit, or piece, of product with the average wages paid to each class of employes would be very instructive in this connection, but it would be difficult to obtain the data for such a comparison.

No explanation can be offered here why, as the figures show, there should have been a decreased product per employe in such industries as corsets, hardware, rubber goods and shoes, in which it might naturally be supposed that improved methods and improved machinery would result in an increased product per employe, and in which industries also piece work exists to a large extent.

## INCREASED OR DECREASED WAGES AND PRODUCT.

Limiting the comparison of average wages to product to the same eighty-two establishments reporting annually for five years, and it is seen that of the ten industries reporting an increased average wage in 1888 six reported an increased total product and five increased product per employe; while of the ten reporting a decreased average wage five report a decreased total product and six a decreased product per employe. In 1889 twelve of the fourteen showing an increased average wage, report an increased total product, and eleven an increased product per employe; while of the six in which average wages decreased, four report a decrease in total product and five a decrease in product per employe. The coincidence is not so marked in 1890, in which year five of the seven industries in which average wages increased report an increased total product and an increased product per employe; while only three of the thirteen showing a decreased average wage report a decrease in total product and six a decreased product per employe. The number of coincidences rise again in 1891, when of the fourteen industries in which the average wage increased, twelve reported an increased total product and eleven an increased product per employe; while of the six reporting a decreased average, two show a decreased total product and two a decreased product per employe. Finally, comparing 1887 with 1891, fourteen industries report an increased average wage, thirteen of the fourteen reporting an increased total product and nine an increased product per employe; and six report a decreased average wage, two of the six showing a decreased total product and five a decreased product per employe.

This showing demonstrates again the tendency of wages to increase with an increasing product, or to decrease with a decreasing product, and is added proof of the elevating influence on labor of the improved methods of manufacture which increase production.

## TO THE ADVANTAGE OF ALL.

It does not follow that this improvement is to the advantage of a portion of the workers, and to the disadvantage of others by reason of a decreased demand for their labor through the introduction of labor-saving machinery or devices. Though in 1888 and in 1890 there was a decreased number of employes in four of the five

industries in each year in which there was a coincidence of increased average wages with increased product per employe; in 1889 only two of the eleven in which there was a like coincidence report a decreased number of employes and in 1891 only three of the ten. In many instances also the variation in the number of employes was not marked enough to warrant any theory for the difference. Conclusions of this character can only be drawn from data extending over a period of years. In the five years covered by these figures two of the nine industries showing a coincidence between increased product per employe and increased average wages report a less number of employes. The proportion would undoubtedly be even less in a longer period, in accordance with the established rule that enlarged consumption, consequent upon cheapened production, increases the demand for labor.

#### INCREASED PRODUCT AND DECREASED LABOR COST.

Throughout the five years, in all the establishments reporting, in the twenty industries under consideration, there was a coincidence of increased labor cost with increased product per employe in only four industries—cotton goods, knit goods, printing and publishing and woollen goods; and a coincidence of decreased labor cost with decreased product in only one industry—corset-making. In a large majority of the twenty industries increased product per employe accompanied decreased labor cost, or vice versa.

#### THE EMPLOYEE'S LARGER RELATIVE SHARE.

Though the workman received increased average wages for his increased product, the employer paid less per dollar of product for labor. This is strictly in harmony with the results noted by investigators elsewhere, following the adoption of improved methods of production. The employe often shares in these results to a larger relative extent than does the employer. The former receives a larger aggregate wage and buys of the abundant product for his own consumption at a cheaper rate, while capital must needs be satisfied with a lower percentage of profit on an increased product.

That is a natural result, interfered with sometimes, however, by combinations which maintain at a fixed price a generally needed commodity, or restrict the production of a commodity, for which there is not such a positive demand, or for the use of which there may be convenient substitutes.

Labor cannot share, to any appreciable extent, in the benefits of



artificially enhanced prices, and it must necessarily lose under a system of restricted production which lessens the demand for that which it has to sell, while increasing the price of that which it needs to buy.

#### COST OF MATERIAL AND LABOR.

Table XIII shows among other things, the variation annually in the cost of material and in the cost of labor. A change in the one cannot, of course, be predicated upon a change in the other; a rise or fall in labor cost cannot be arbitrarily ascribed to a fall or a rise in material cost, since there are other things that may influence labor cost. But it is reasonable to infer that one of the first effects of a rising market for materials would be an attempt to equalize total cost by a reduction in the cost of labor; while labor's chances of receiving a higher wage would be better under the condition of a decreasing cost for material.

An analysis of the table at least shows this: That in the same eighty-two establishments reporting annually there was in 1888 a coincidence of increased material cost with decreased labor cost, or vice versa, in twelve of the twenty industries; in 1889 a like coincidence in fourteen industries, and a coincidence of decreased material cost and the same labor cost in one other; in 1890 and 1891 like coincidences in eleven industries; and comparing 1887 with 1891, like coincidences in fourteen of the twenty industries.

The table shows differences, sometimes radical, in the cost of material as reported by the establishments in the list of the same eighty-two, and as reported by all the establishments in like lines of industry making reports. A more minute classification of the industries might give more harmonious results. In all the establishments reporting there was in 1888 a coincidence of increased material cost with decreased labor cost, or vice versa, in thirteen industries; in 1889 and in 1890 in twelve industries; in 1891 in thirteen; and, comparing 1887 with 1891, in thirteen industries.

#### PROFITS AND COST OF MATERIAL AND LABOR.

Profits are, of course, largely contingent upon changes in cost of material and of labor. The comparison or analysis here is made of all the establishments reporting in the twenty lines of industry. It is found that throughout the five years there were only three industries (and those in 1889) in which an increased per cent. of profit accompanied an increased cost of material and labor; while com-

paring 1887 with 1891, the coincidence was only found in one industry. There was, on the contrary, many instances in which a decreased rate of profit accompanied a coincidence of increased material cost with increased labor cost. As a rule, the rate of profit rose or fell, as the cost of material or of labor decreased or increased, the profit increase accompanying decreased labor cost more frequently than decreased material cost.

#### CAPITAL PER UNIT OF PRODUCT, ETC.

The statistical presentation closes with tables showing the amount of capital employed per unit of product, per unit of wages paid and per employe. The average in all the industries for five years shows that the capital employed just about equaled the product, or, in other words, that a dollar in capital was employed in producing a dollar of product; that the capital was about three and a half times the wages paid, or that a dollar in wages was paid for each \$3.50 of capital invested; and that about \$1,600 in capital was invested per each person employed in productive labor.

The largest amount of capital employed in the production of a unit of product were in printing and publishing, cotton goods, machine shops, clocks and silver plating, in the order named, all being above the average; and all (with the single exception of clocks) largely exceeding the average capital per dollar in wages paid and per employe. The smallest relative amounts of capital employed per unit of product were in hats, shoes, bakeries, corsets, brass, knit goods, iron foundries, silk and malleable iron, all being below the average; and all, except bakeries, brass and silk, being under the average of capital employed per dollar of wages and per employe.

#### ADVANCE IN PRODUCTIVE CAPACITY.

From 1887 to 1891 the amount of capital employed per dollar of product increased in bakeries, corsets, cutlery, hats, malleable iron, shoes and silver plating; decreased in brass, cotton goods, forgings, hardware, iron foundries, knit goods, machine shops, paper mills, printing and publishing, rubber goods, and silk; and remained the same in clocks and woolen goods. In a bare majority of the twenty industries capital developed a greater productive power in 1891 than in 1887. The percentages of decrease, how-

ever, are, as a rule, much larger than the percentages of increase, warranting the general conclusion of a rapid advance during the five years in the productive capacity of capital.

TABLE II.—ABSTRACT OF MANUFACTURES,

	INDUSTRIES.	No. of Estab- lish- ments.	No. of Em- ployes	Capital.	Value of goods manufac- tured.	Value of stock and materials.	Cost of man- ufacture, less rent, inter- est, and taxes.
1	Arms and Ammunition, }	9	779	\$1,233,500.00	\$1,244,445.00	\$ 378,641.36	\$ 678,750.80
2	Bakeries, .	6	114	282,700.00	549,931.56	349,465.00	138,013.32
3	Bells, . .	11	281	294,200.00	490,906.00	233,090.00	199,693.00
4	Brass, . .	62	13,769	21,017,500.00	31,070,219.38	19,580,579.36	9,023,265.70
5	Brooms and Brushes, . }	6	55	76,600.00	103,839.00	53,280.00	37,338.00
6	Buttons, . .	8	549	402,500.00	595,936.75	208,433.05	303,865.51
7	Carriages, .	52	1,707	2,541,756.95	3,312,582.00	1,461,385.00	1,425,328.64
8	Chemical Products, . }	11	98	438,000.00	638,000.00	359,300.00	156,550.00
9	Clocks, . .	8	2,160	3,232,000.00	2,889,500.00	1,203,500.00	1,437,560.00
10	Corsets, . .	14	4,772	3,175,000.00	5,619,582.50	3,135,059.00	1,999,972.00
11	Cotton, . .	67	12,594	23,175,059.00	16,037,658.40	9,488,605.73	4,870,496.92
12	Cutlery, . .	10	775	1,154,010.00	940,302.81	270,811.19	491,361.61
13	Electrical Supplies, . }	6	557	1,103,816.19	1,019,958.20	963,297.68	421,456.02
14	Forgings, .	6	454	778,500.00	941,473.00	391,000.00	375,724.00
15	General Hardware, . }	94	8,571	10,183,741.90	11,536,978.64	4,589,854.60	5,599,519.16
16	Hats, . .	60	7,221	4,845,083.85	11,808,116.07	5,963,188.00	4,907,679.47
17	Hatters' Tools,	7	44	79,000.00	92,250.00	33,495.00	46,262.00
18	Iron Found- ries, . . }	16	1,500	1,837,086.40	2,451,719.80	1,079,051.13	1,093,319.37
19	Iron, Malle- able, . . }	5	1,236	1,160,806.44	1,534,633.69	591,950.00	812,748.00
20	Ivory Goods,	5	689	690,000.00	1,520,465.00	971,048.00	463,520.00
21	Knit Goods, .	27	3,582	3,036,614.00	4,525,283.59	2,425,800.17	1,579,937.53
22	Leather Goods,	9	445	422,200.00	707,271.61	409,069.84	233,561.40
23	Machine Shops,	83	6,100	11,204,299.40	9,291,339.51	2,920,276.15	4,643,592.78
24	Newspapers (daily), . }	9	240	532,000.00	496,139.00	117,091.00	321,933.00
25	Organs and Pianos, . }	4	745	1,281,536.00	1,344,000.00	632,100.00	571,220.00
26	Paper Boxes,	30	1,125	552,350.00	1,031,705.00	429,985.00	481,425.75
27	Paper Mills, .	33	1,234	2,875,496.00	3,393,145.13	1,869,617.94	1,094,188.55
28	Patterns, .	4	19	28,000.00	30,220.00	6,192.00	19,432.00



## CAPITAL, WAGES, PROFITS, ETC., 1891.

Rent, interest, and taxes.	Superin- tendence.	Wages.	Gross Profits.	Net Profits.	No. in su- perin- tendence, including non- producers.	Per cent. of net profits of capital.	Per cent. of superin- tendence of wages.	
\$ 31,516.55	\$ 43,100.00	\$ 448,354.59	\$ 187,052.84	\$ 155,536.29	28	12.61	9.61	1
13,786.55	20,300.00	63,759.00	62,453.24	48,666.69	30	17.21	31.83	2
5,561.60	21,700.00	108,498.00	58,123.00	52,561.40	20	17.86	20.00	3
436,981.24	1,010,787.00	6,320,400.60	2,466,374.32	2,029,393.08	712	9.65	15.99	4
2,355.00	7,200.00	26,020.00	13,221.00	10,866.00	10	14.18	27.67	5
11,419.43	50,910.17	191,031.46	83,638.19	72,218.76	50	17.94	26.65	6
75,547.80	166,528.00	1,068,677.73	425,868.36	350,320.56	127	13.78	15.58	7
6,988.04	32,950.00	69,337.00	122,150.00	115,161.96	24	26.29	47.52	8
53,706.00	191,000.00	1,155,830.37	248,440.00	188,734.00	168	5.83	16.52	9
140,933.40	259,522.00	1,566,917.00	484,551.50	343,618.10	280	10.82	16.56	10
438,222.09	427,151.87	3,725,383.62	1,678,555.75	1,240,333.66	435	5.35	11.46	11
23,583.93	49,835.00	405,195.00	178,130.01	154,546.08	45	13.39	12.29	12
33,228.11	100,134.70	205,044.78	235,204.50	201,976.39	122	18.29	48.83	13
14,611.00	44,464.00	271,680.00	174,749.00	160,138.00	30	20.57	16.36	14
223,336.16	554,634.86	4,124,885.03	1,347,604.88	1,124,268.72	675	11.03	13.44	15
180,465.46	313,265.56	4,034,026.50	937,248.60	756,783.14	305	15.61	7.76	16
3,532.00	5,600.00	23,344.00	12,493.00	8 961.00	6	11.34	23.98	17
45,663.62	106,837.00	856,243.04	279,349.30	233,685.68	88	12.72	12.47	18
16,957.00	77,000.00	599,983.75	129,935.69	112,978.69	59	9.73	12.83	19
15,884.00	30,978.00	352,290.00	85,897.00	70,013.00	26	10.14	8.79	20
105,098.60	192,338.00	1,176,359.84	519,545.89	414,447.29	163	13.64	16.35	21
22,574.93	26,717.00	186,587.00	64,640.37	42,065.44	36	9.96	14.31	22
205,802.39	627,162.77	3,403,175.34	1,727,470.58	1,521,668.19	411	13.58	18.42	23
24,591.00	45,750.00	228,747.00	57,115.00	32,524.00	43	6.07	20.00	24
21,286.00	46,950.00	464,500.00	140,680.00	119,394.00	35	9.31	10.17	25
19,220.00	49,888.00	392,013.00	120,294.25	101,074.25	45	18.29	12.59	26
81,502.52	101,468.30	623,172.64	429,338.64	347,836.12	89	12.09	16.28	27
686.00	4,200.00	13,391.00	4,596.00	3,910.00	4	13.96	31.36	28

TABLE II.—ABSTRACT OF MANUFACTURES,

	INDUSTRIES.	No. of Estab- lish- ments.	No. of Em- ployes	Capital.	Value of goods manufac- tured.	Value of stock and materials.	Cost of man- ufacture, less rent, inter- est, and taxes.
29	Printing and Publishing, {	11	455	\$ 832,500.00	\$ 567,000.00	\$ 195,200.00	\$ 273,397.00
30	Rubber Goods,	10	4,063	6,447,500.00	6,333,555.19	3,861,723.84	1,865,337.10
31	Sash, Doors, { and Blinds, }	4	93	93,000.00	162,500.00	93,318.00	56,800.00
32	Saw and Grist Mills, }	3	57	226,000.00	539,000.00	447,100.00	41,700.00
33	Shoes, . .	19	1,292	920,243.00	2,013,718.03	1,135,066.20	721,191.43
34	Silk, . .	27	4,583	7,923,437.00	13,407,877.48	9,849,626.75	2,558,647.33
35	Silver Plating,	27	4,367	10,327,399.14	9,548,560.52	4,358,579.37	3,980,091.69
36	Spring Beds and Mat- tresses, }	6	176	335,000.00	412,000.00	232,500.00	123,150.00
37	Tinware and Toys, . . }	9	383	354,675.00	536,150.00	284,440.00	206,960.00
38	Wire Goods, .	13	602	540,000.00	1,302,939.75	854,575.00	372,796.72
39	Wooden Ware,	19	935	1,222,000.00	1,159,063.00	460,737.00	478,672.50
40	Woolen Goods,	51	8,351	13,732,727.26	15,588,943.90	9,335,439.20	4,527,938.64
	Total, . .	861	96,772	140,587,839.44	167,388,909.51	91,223,471.56	58,634,396.94

## CAPITAL, WAGES, PROFITS, ETC., 1891.—CONCLUDED.

Rent, interest, and taxes.	Superin- tendence.	Wages.	Gross Profits.	Net Profits.	No. in su- perin- tendence, including non- producers.	Per cent. of net profits of capital.	Per cent. of superin- tendence of wages.	
\$ 13,440.00	\$ 44,350.00	\$ 211,841.00	\$ 98,403.00	\$ 84,963.00	37	10.20	20.93	29
242,464.11	165,374.00	1,558,952.10	606,494.25	364,030.14	120	5.64	10.60	30
3,901.15	5,750.00	42,048.00	12,382.00	8,480.85	6	9.11	13.67	31
4,900.00	5,605.00	23,390.00	50,200.00	45,300.00	5	20.04	23.96	32
31,413.49	103,653.74	575,295.56	157,460.40	126,046.91	90	13.69	18.01	33
114,785.46	304,627.66	1,649,705.39	999,603.40	884,817.94	172	11.16	18.46	34
148,794.46	484,997.85	2,361,080.16	1,209,889.46	1,061,095.00	377	10.27	20.54	35
5,769.00	26,800.00	71,500.00	56,350.00	50,581.00	21	15.09	37.48	36
12,254.00	25,450.00	138,429.00	44,750.00	32,496.00	53	9.16	48.15	37
12,342.07	30,050.00	262,954.72	75,568.03	63,225.96	28	11.70	11.42	38
21,665.50	70,036.00	303,264.04	219,653.50	197,988.00	51	17.08	30.90	39
410,961.51	275,700.00	3,083,978.58	1,725,566.06	1,314,604.55	179	9.57	8.93	40
3,283,731.17	6,150,266.48	42,387,285.84	17,531,041.01	14,247,309.84	5,205	10.13	14.50	

TABLE III—PERCENTAGES OF COST, 1891.

INDUSTRIES.		Per cent. wages of cost of goods manufact- ured.	Per cent. superin- tendence of cost of goods manufact- ured.	Per cent. value of stock and materials of cost of goods manufact- ured.	Per cent. rent, in- terest and taxes of cost of goods manufact- ured.	Per cent. general expenses of cost of goods manufact- ured.
1	Arms and Ammunition,	41.18	3.96	34.77	2.89	17.20
2	Bakeries, . . . .	12.72	4.05	69.71	2.75	10.77
3	Bells, . . . . .	24.75	4.95	53.18	1.27	15.85
4	Brass, . . . . .	21.76	3.49	67.42	1.50	5.83
5	Brooms and Brushes,	27.99	7.75	57.32	2.51	4.43
6	Buttons, . . . .	36.48	9.72	39.80	2.18	11.82
7	Carriages, . . . .	36.08	5.62	49.33	2.55	6.42
8	Chemical Products, .	13.26	6.30	68.72	1.34	10.38
9	Clocks, . . . . .	42.80	7.07	44.56	2.21	3.36
10	Corsets, . . . . .	29.70	4.92	59.42	2.67	3.29
11	Cotton, . . . . .	25.18	2.89	64.12	2.96	4.85
12	Cutlery, . . . . .	51.57	6.34	34.47	3.00	4.62
13	Electrical Supplies, .	14.46	7.13	67.94	2.34	8.13
14	Forgings, . . . .	34.77	5.69	50.04	1.87	7.63
15	General Hardware, .	39.61	5.33	44.08	2.14	8.84
16	Hats, . . . . .	36.50	2.84	53.96	1.63	5.07
17	Hatters' Tools, . .	28.03	6.72	40.22	4.24	20.79
18	Iron Foundries, . .	38.60	4.82	48.65	2.06	5.87
19	Iron, Malleable, . .	42.20	5.42	41.64	1.19	9.55
20	Ivory Goods, . . .	24.29	2.13	66.95	1.10	5.53
21	Knit Goods, . . . .	28.61	4.68	59.01	2.56	5.14
22	Leather Goods, . .	28.05	4.02	61.50	3.39	3.04
23	Machine Shops, . .	43.80	8.07	37.59	2.65	7.89
24	Newspapers (daily), .	49.34	9.87	25.26	5.30	10.23
25	Organs and Pianos, .	37.93	3.83	51.62	1.74	4.88
26	Paper Boxes, . . .	35.35	5.31	46.20	2.07	11.07
27	Paper Mills, . . . .	20.46	3.33	61.39	2.68	12.14
28	Patterns, . . . . .	50.90	15.96	23.53	2.61	7.00
29	Printing and Publishing,	54.04	11.31	26.83	3.43	4.39



TABLE III—PERCENTAGES OF COST, 1891.—CONCLUDED.

	INDUSTRIES.	Per cent. wages of cost of goods manufact- ured.	Per cent. superin- tendence of cost of goods manufact- ured.	Per cent. value of stock and materials of cost of goods manufact- ured.	Per cent. rent, in- terest and taxes of cost of goods manufact- ured.	Per cent. general expenses of cost of goods manufact- ured.
30	Rubber Goods, . . .	26.10	2.77	64.71	4.06	2.36
31	Sash, Doors and Blinds,	27.30	3.73	60.59	2.53	5.85
32	Saw and Grist Mills, .	4.74	1.14	90.56	.99	2.57
33	Shoes, . . . . .	30.48	5.49	60.13	1.66	2.24
34	Silk, . . . . .	13.17	2.43	78.65	.92	4.83
35	Silver Plating, . . .	27.82	5.71	51.35	1.76	13.36
36	Spring Beds and Mat- tresses, . . . }	19.78	7.42	64.32	1.60	6.88
37	Tinware and Toys, .	27.49	5.05	56.48	2.43	8.55
38	Wire Goods, . . . .	21.21	2.42	68.93	1.00	6.44
39	Wooden Ware, . . .	31.55	7.29	47.94	2.26	10.96
40	Woolen Goods, . . .	21.60	1.93	65.40	2.88	8.19
	Per cent. of Totals, .	27.68	4.02	59.57	2.14	6.59

TABLE IV.—PERCENTAGES OF VALUE, 1891.

	INDUSTRIES.	Per cent. value of stock and materials of value of goods man- ufactured.	Per cent. of cost of manufac- ture (less rent, inter- est and taxes) of value of goods man- ufactured.	Per cent. of rent, interest and taxes of value of goods man- ufactured.	Per cent. of net profits of value of goods man- ufactured.
1	Arms and Ammunition, .	30.43	54.54	2.53	12.50
2	Bakeries, . . . . .	63.55	25.10	2.51	8.84
3	Bells, . . . . .	47.48	40.68	1.13	10.71
4	Brass, . . . . .	63.02	29.04	1.41	6.53
5	Brooms and Brushes, .	51.31	35.96	2.27	10.46
6	Buttons, . . . . .	34.97	50.99	1.92	12.12
7	Carriages, . . . . .	44.12	43.03	2.28	10.57
8	Chemical Products, . .	56.32	24.53	1.10	18.05
9	Clocks, . . . . .	41.65	49.75	2.07	6.53
10	Corsets, . . . . .	55.79	35.59	2.51	6.11
11	Cotton, . . . . .	59.16	30.37	2.73	7.74
12	Cutlery, . . . . .	28.80	52.25	2.51	16.44
13	Electrical Supplies, .	59.46	26.02	2.05	12.47
14	Forgings, . . . . .	41.53	39.91	1.55	17.01
15	General Hardware, . .	39.78	48.54	1.94	9.74
16	Hats, . . . . .	50.50	41.56	1.53	6.41
17	Hatters' Tools, . . . .	89.78	8.31	.48	1.43
18	Iron Foundries, . . .	44.01	44.60	1.86	9.53
19	Iron, Malleable, . . .	38.57	52.96	1.11	7.36
20	Ivory Goods, . . . . .	63.87	30.49	1.04	4.60
21	Knit Goods, . . . . .	53.61	34.91	2.32	9.16
22	Leather Goods, . . . .	57.84	33.02	3.19	5.95
23	Machine Shops, . . . .	31.43	49.98	2.22	16.37
24	Newspapers (daily), .	23.60	64.89	4.95	6.56
25	Organs and Pianos, . .	47.03	42.50	1.59	8.88
26	Paper Boxes, . . . . .	41.68	46.66	1.86	9.80
27	Paper Mills, . . . . .	55.10	32.24	2.40	10.26
28	Patterns, . . . . .	20.49	64.30	2.27	12.94
29	Printing and Publishing,	34.43	48.22	2.37	14.98

TABLE IV.—PERCENTAGES OF VALUE, 1891.—CONCLUDED.

INDUSTRIES.		Per cent. value of stock and materials of value of goods man- ufactured.	Per cent. of cost of manufac- ture (less rent, inter- est and taxes) of value of goods man- ufactured.	Per cent. of rent, interest and taxes of value of goods man- ufactured.	Per cent. of net profits of value of goods man- ufactured.
30	Rubber Goods, . . . . .	60.97	29.45	3.83	5.75
31	Sash, Door and Blinds, .	57.43	34.95	2.40	5.22
32	Saw and Grist Mills, .	82.95	7.74	.91	8.40
33	Shoes, . . . . .	56.37	35.81	1.56	6.26
34	Silk, . . . . .	73.46	19.08	.86	6.60
35	Silver Plating, . . . .	45.65	41.68	1.56	11.11
36	Spring Beds and { Mattresses, }	56.43	29.89	1.40	12.28
37	Tinware and Toys, . .	53.05	38.60	2.29	6.06
38	Wire Goods, . . . .	65.59	28.61	.95	4.85
39	Wooden Ware, . . . .	39.75	41.30	1.87	17.08
40	Woolen Goods, . . . .	59.89	29.05	2.63	8.43
Per cent. of Totals, .		54.49	35.03	1.96	8.52

TABLE V.—ABSTRACT OF SAME 624 ESTAB-

	INDUSTRIES.	Number of Establishments.			Number of Employees.		
		1891.	1890.	1889.	1891.	1890.	1889.
1	Arms and Ammunition, . . . . .	8	8	8	759	659	594
2	Bakeries, . . . . .	6	6	6	114	124	110
3	Bells, . . . . .	8	8	8	235	248	259
4	Brass, . . . . .	47	47	47	12,573	12,512	11,319
5	Brooms and Brushes, . . . . .	3	3	3	45	44	46
6	Buttons, . . . . .	4	4	4	409	387	371
7	Carriages, . . . . .	36	36	36	1,529	1,515	1,431
8	Chemical Products, . . . . .	4	4	4	24	24	24
9	Clocks, . . . . .	6	6	6	1,522	1,518	1,542
10	Corsets, . . . . .	10	10	10	4,202	3,748	2,880
11	Cotton Goods, . . . . .	54	54	54	10,411	10,275	9,440
12	Cutlery, . . . . .	4	4	4	198	176	145
13	Electrical Supplies, . . . . .	4	4	4	477	420	300
14	Forgings, . . . . .	4	4	4	334	435	304
15	General Hardware, . . . . .	66	66	66	6,146	6,113	6,330
16	Hats, . . . . .	41	41	41	5,874	5,621	5,156
17	Hatters' Tools, . . . . .	6	6	6	32	35	38
18	Iron Foundries, . . . . .	9	9	9	702	662	637
19	Iron, Malleable, . . . . .	5	5	5	1,236	1,226	1,225
20	Ivory Goods, . . . . .	4	4	4	489	464	434
21	Knit Goods, . . . . .	19	19	19	2,827	2,793	2,703
22	Leather Goods, . . . . .	5	5	5	318	318	323
23	Machine Shops, . . . . .	54	54	54	4,737	4,764	4,481
24	Newspapers (daily), . . . . .	9	9	9	240	228	228
25	Organs and Pianos, . . . . .	3	3	3	695	702	686
26	Paper Boxes, . . . . .	25	25	25	917	737	933
27	Paper Mills, . . . . .	25	25	25	976	874	880
28	Patterns, . . . . .	3	3	3	14	12	12
29	Printing and Publishing, . . . . .	9	9	9	393	373	364
30	Rubber Goods, . . . . .	5	5	5	3,800	3,725	3,359



## LISHMENTS, 1891, 1890 AND 1889, COMPARED.

Capital Employed.			Value of Goods Manufactured.			
1891.	1890.	1889.	1891.	1890.	1889.	
\$1,208,500.00	\$ 1,193,500.00	\$ 1,140,500.00	\$ 1,212,125.00	\$ 1,121,038.61	\$ 973,872.68	1
282,700.00	290,500.00	275,000.00	549,931.56	588,516.56	509,000.00	2
323,200.00	296,933.00	316,213.72	435,436.00	417,152.46	407,546.13	3
20,345,000.00	19,908,157.10	18,798,243.88	29,831,329.78	29,353,276.50	24,588,314.22	4
60,500.00	63,500.00	63,000.00	85,639.00	84,279.00	95,398.00	5
315,500.00	288,000.00	286,000.00	455,715.68	417,086.75	368,595.59	6
3,156,800.00	2,150,500.00	2,044,800.00	2,878,882.00	2,881,367.00	2,591,117.00	7
55,000.00	69,000.00	69,000.00	104,000.00	119,000.00	118,000.00	8
2,470,000.00	2,447,711.43	2,277,651.87	2,024,000.00	1,953,940.80	1,698,017.50	9
2,835,000.00	2,771,000.00	2,547,155.00	5,118,762.50	4,553,100.00	4,277,942.00	10
19,863,359.00	20,224,219.07	19,671,976.35	14,149,361.40	13,637,730.49	12,664,936.04	11
201,000.00	155,000.00	150,000.00	219,500.00	189,200.00	161,000.00	12
1,000,316.19	1,017,311.96	906,824.18	1,419,758.20	1,321,849.21	1,097,102.62	13
578,500.00	726,500.00	571,600.00	698,833.00	881,533.00	627,243.00	14
7,594,366.85	7,335,176.47	7,626,941.01	8,839,997.85	8,238,873.11	8,312,259.89	15
4,122,633.00	3,409,404.88	3,271,960.00	9,668,221.37	8,965,824.11	8,069,561.07	16
69,000.00	72,500.00	82,100.00	67,250.00	82,500.00	75,374.42	17
846,711.40	832,275.00	766,846.20	1,033,197.00	1,000,927.67	986,571.10	18
1,160,806.44	1,086,566.74	1,093,542.56	1,534,633.69	1,453,364.98	1,620,855.40	19
440,000.00	490,000.00	491,000.00	920,465.00	901,300.00	765,000.00	20
2,555,000.00	2,329,000.00	2,286,809.00	3,766,138.01	3,493,200.00	3,362,841.00	21
309,000.00	298,200.00	294,100.00	481,711.61	490,911.61	493,211.61	22
9,087,778.76	8,947,838.24	8,404,884.60	7,496,593.23	7,480,540.43	6,678,435.87	23
532,000.00	529,300.00	529,300.00	496,139.00	484,069.00	484,069.00	24
1,206,536.00	1,196,536.00	1,096,539.00	1,260,000.00	1,255,000.00	1,170,975.00	25
484,850.00	466,000.00	491,200.00	891,938.00	906,344.10	918,592.50	26
2,185,496.00	2,064,816.00	1,961,124.00	2,557,495.13	2,252,696.00	2,359,428.67	27
19,500.00	18,500.00	17,600.00	21,220.00	20,500.00	19,250.00	28
734,500.00	704,752.17	699,531.61	487,500.00	447,504.61	478,423.27	29
6,175,000.00	6,075,000.00	5,956,260.54	5,875,753.19	5,652,753.19	5,245,386.76	30

TABLE V.—ABSTRACT OF SAME 624 ESTABLISH-

	INDUSTRIES	Number of Establishments.			Number of Employees.		
		1891.	1890.	1889.	1891.	1890.	1889.
31	Sash, Doors and Blinds, . . .	4	4	4	93	93	92
32	Saw and Grist Mills, . . .	3	3	3	57	57	56
33	Shoes, . . . . .	11	11	11	890	881	861
34	Silks, . . . . .	22	22	22	4,247	4,443	3,940
35	Silver Plating, . . . . .	26	26	26	4,396	4,459	4,286
36	Spring Beds and Mattresses, .	5	5	5	161	160	159
37	Tinware and Toys, . . . .	5	5	5	336	337	327
38	Wire Goods, . . . . .	7	7	7	319	145	165
39	Wooden Ware, . . . . .	6	6	6	200	279	245
40	Woolen Goods, . . . . .	49	49	49	7,600	7,471	7,339
	Totals, . . . . .	624	624	624	80,527	79,057	74,324

## MENTS, 1891, 1890 AND 1889 COMPARED.—CONTINUED.

Capital Employed.			Value of Goods Manufactured.			
1891.	1890.	1889.	1891.	1890.	1889.	
\$ 93,000.00	\$ 93,000.00	\$ 92,000.00	\$ 162,500.00	\$ 162,300.00	\$ 162,000.00	31
226,000.00	281,000.00	275,000.00	539,000.00	535,000.00	398,000.00	32
628,238.00	662,228.00	627,328.00	1,404,484.16	1,373,845.76	1,352,902.43	33
7,619,437.00	6,948,842.78	6,748,640.06	8,765,399.48	8,925,632.48	8,423,189.61	34
10,581,089.14	10,082,522.00	9,929,084.23	9,676,060.52	9,187,856.76	8,334,364.87	35
328,000.00	311,000.00	310,000.00	377,000.00	345,000.00	341,700.00	36
299,000.00	356,000.00	354,100.00	462,100.00	447,800.00	429,945.40	37
238,000.00	241,000.00	339,500.00	714,639.75	361,800.00	817,342.00	38
377,000.00	453,000.00	403,700.00	303,572.00	488,600.00	429,000.00	39
12,970,157.91	12,824,762.41	12,165,059.32	14,155,714.50	13,242,166.79	12,794,593.23	40
123,578,475.69	117,711,059.25	115,432,115.13	141,141,997.01	135,715,380.98	124,701,357.88	

TABLE V.—ABSTRACT OF SAME 624 ESTABLISH.

	INDUSTRIES.	Value of Stock and Materials.		
		1891.	1890.	1889.
1	Arms and Ammunition, . . .	\$363,431.36	\$330,969.24	\$286,669.26
2	Bakeries, . . . . .	349,465.00	381,025.00	333,760.00
3	Bells, . . . . .	202,390.00	205,594.49	212,093.56
4	Brass, . . . . .	19,029,390.46	18,811,740.19	14,780,770.88
5	Brooms and Brushes, . . .	45,617.00	46,317.66	56,917.00
6	Buttons, . . . . .	179,922.44	156,355.05	135,698.36
7	Carriages, . . . . .	1,291,215.00	1,336,097.00	1,147,741.80
8	Chemical Products, . . .	64,500.00	72,000.00	72,000.00
9	Clocks, . . . . .	840,000.00	830,991.33	652,250.78
10	Corsets, . . . . .	2,958,379.00	2,618,000.00	2,410,765.00
11	Cotton Goods, . . . . .	7,751,218.05	7,539,766.23	6,792,798.87
12	Cutlery, . . . . .	54,150.00	45,700.00	37,950.00
13	Electrical Supplies, . . .	885,340.73	844,448.86	672,521.87
14	Forgings, . . . . .	290,700.00	364,403.00	256,133.00
15	General Hardware, . . . .	3,427,537.84	3,360,496.20	3,460,544.45
16	Hats, . . . . .	4,760,622.06	4,587,592.29	4,187,930.22
17	Hatters' Tools, . . . . .	25,495.00	29,700.00	22,657.76
18	Iron Foundries, . . . . .	444,517.88	431,779.50	434,974.85
19	Iron, Malleable, . . . . .	591,950.00	554,848.09	618,150.58
20	Ivory Goods, . . . . .	570,048.00	563,600.00	468,850.00
21	Knit Goods, . . . . .	2,125,420.33	1,987,588.00	1,862,833.00
22	Leather Goods, . . . . .	270,694.84	280,644.84	295,344.84
23	Machine Shops, . . . . .	2,460,758.49	2,460,055.98	2,258,935.80
24	Newspapers (daily), . . .	117,091.00	113,060.00	113,060.00
25	Organs and Pianos, . . . .	589,000.00	641,000.00	625,173.00
26	Paper Boxes, . . . . .	389,618.00	408,366.32	405,584.00
27	Paper Mills, . . . . .	1,435,118.94	1,166,121.48	1,217,579.27
28	Patterns, . . . . .	4,466.00	4,300.00	3,650.00
29	Printing and Publishing, . .	169,300.00	155,142.87	155,292.27
30	Rubber Goods, . . . . .	3,592,141.84	3,547,141.84	3,252,652.57



## MENTS, 1891, 1890 AND 1889 COMPARED.—CONTINUED.

Cost of Manufacture, Less Rent, Interest and Taxes.			Rent, Interest and Taxes.			
1891.	1890.	1889.	1891.	1890.	1889.	
\$ 666,560.80	\$ 604,412.33	\$ 546,471.02	\$ 31,006.55	\$ 28,068.75	\$ 29,365.74	1
138,013.32	141,193.00	121,212.00	13,786.55	14,783.05	11,542.00	2
181,577.00	168,080.23	130,806.67	4,919.60	5,727.22	4,347.56	3
8,526,908.20	8,353,646.62	7,739,274.87	444,968.14	512,896.25	340,261.92	4
29,300.00	27,810.53	29,197.00	790.00	1,152.18	819.00	5
229,093.26	217,959.51	203,282.29	7,931.33	7,514.43	7,581.09	6
1,225,196.60	1,240,974.67	1,133,260.97	65,672.00	65,928.23	62,003.23	7
25,450.00	30,750.00	29,915.00	1,072.00	1,125.00	1,125.00	8
978,060.00	988,609.98	966,616.75	55,506.00	54,299.41	30,476.15	9
1,776,924.00	1,513,700.00	1,478,310.00	86,079.00	73,707.00	69,847.00	10
4,045,540.92	4,092,407.31	4,304,782.61	363,853.44	395,493.10	381,296.98	11
125,300.00	120,000.00	103,154.00	5,764.00	5,300.00	4,719.00	12
371,900.71	367,256.83	277,523.50	25,712.01	23,877.52	24,773.51	13
279,784.00	348,641.00	256,558.00	3,131.00	4,173.09	2,945.00	14
3,836,287.03	3,747,991.93	4,027,703.64	154,705.27	145,452.83	152,036.40	15
3,891,816.35	3,710,454.27	3,392,232.25	144,536.32	107,197.22	93,480.49	16
31,262.00	44,475.00	29,529.00	2,782.00	3,265.00	3,525.00	17
466,699.60	448,830.00	415,231.08	23,275.00	23,465.00	22,980.12	18
812,748.00	787,225.32	855,101.45	16,957.00	16,337.91	18,761.11	19
288,520.00	270,990.00	243,750.00	9,884.00	7,552.00	4,450.00	20
1,362,588.64	1,110,304.02	1,090,927.36	98,857.90	65,640.00	65,371.50	21
171,548.40	171,248.40	162,548.40	16,917.93	16,905.93	16,797.93	22
3,764,452.12	3,690,444.57	3,234,501.69	170,656.71	157,579.65	165,304.15	23
321,933.00	310,564.00	297,116.00	24,591.00	23,954.00	23,954.00	24
540,000.00	479,000.00	452,237.00	20,000.00	20,000.00	18,987.00	25
396,145.75	400,878.99	409,160.00	16,594.00	14,997.00	17,640.00	26
881,388.55	752,176.48	793,728.82	58,929.52	41,431.57	35,798.36	27
13,202.00	12,500.00	12,400.00	491.00	491.00	441.00	28
232,077.00	220,659.33	226,791.96	10,865.00	14,407.04	15,084.89	29
1,738,870.10	1,680,870.10	1,673,087.06	221,860.11	218,860.11	118,196.37	30

TABLE V—ABSTRACT OF SAME 624 ESTABLISH.

	INDUSTRIES.	Value of Stock and Materials.		
		1891.	1890.	1889.
31	Sash, Doors and Blinds, . . . . .	\$ 93,318.00	\$ 93,268.00	\$ 93,475.00
32	Saw and Grist Mills, . . . . .	447,100.00	442,100.00	306,700.00
33	Shoes, . . . . .	787,818.10	777,136.86	757,932.40
34	Silks, . . . . .	5,472,626.75	5,651,336.22	5,563,738.44
35	Silver Plating, . . . . .	4,359,452.37	4,145,908.47	4,060,410.82
36	Spring Beds and Mattresses, . . . . .	214,500.00	176,500.00	174,300.00
37	Tinware and Toys, . . . . .	262,660.00	226,250.00	217,617.78
38	Wire Goods, . . . . .	440,075.00	201,130.00	552,830.00
39	Wooden Ware, . . . . .	145,212.00	157,150.00	144,805.00
40	Woolen Goods, . . . . .	8,566,417.15	8,113,989.65	7,665,310.77
Totals, . . . . .		76,065,678.63	73,859,614.66	66,768,403.20

## MENTS, 1891, 1890 AND 1889 COMPARED.—CONTINUED.

Cost of Manufacture, Less Rent, Interest and Taxes.			Rent, Interest and Taxes.			
1891.	1890.	1889.	1891.	1890.	1889.	
\$ 56,800.00	\$ 56,900.00	\$ 56,875.00	\$ 3,901.15	\$ 3,892.00	\$ 3,892.00	31
41,700.00	41,181.00	50,150.00	4,900.00	4,940.00	6,430.00	32
498,027.30	481,608.26	488,390.73	23,448.00	24,187.15	20,333.00	33
2,447,397.33	2,247,526.59	1,957,433.17	119,125.46	102,339.95	89,807.95	34
4,023,290.78	3,811,723.93	3,350,501.48	162,399.79	153,531.68	162,850.21	35
115,150.00	120,775.00	118,675.00	5,169.00	3,800.00	3,750.00	36
168,505.00	187,900.00	161,559.27	10,332.00	7,962.00	7,635.26	37
220,450.00	115,420.00	212,100.00	5,439.00	3,422.00	4,507.00	38
96,918.00	249,800.00	219,442.00	4,196.00	6,095.00	4,901.86	39
4,099,990.81	3,795,235.03	3,903,200.52	378,465.84	347,376.32	305,066.31	40
49,117,376.57	47,162,124.23	45,154,687.56	2,819,470.82	2,729,128.39	2,353,085.09	

TABLE V.—ABSTRACT OF SAME 624 ESTABLISH-

	INDUSTRIES.	Gross Profits.		
		1891.	1890.	1889.
1	Arms and Ammunition, . . .	\$ 182,132.84	\$ 185,657.04	\$ 140,732.40
2	Bakeries, . . . . .	62,453.24	66,298.56	54,028.00
3	Bells, . . . . .	51,469.00	43,477.74	64,645.90
4	Brass, . . . . .	2,275,031.12	2,187,889.69	2,068,268.47
5	Brooms and Brushes, . . .	10,722.00	10,150.81	9,284.00
6	Buttons, . . . . .	46,699.98	42,772.19	29,614.94
7	Carriages, . . . . .	362,470.40	304,295.33	310,114.23
8	Chemical Products, . . .	14,050.00	16,250.00	16,085.00
9	Clocks, . . . . .	205,940.00	134,339.49	79,149.97
10	Corsets, . . . . .	383,459.50	421,400.00	388,867.00
11	Cotton Goods, . . . . .	2,352,602.43	2,005,556.95	1,567,354.56
12	Cutlery, . . . . .	40,050.00	23,500.00	19,896.00
13	Electrical Supplies, . . .	162,516.76	110,143.52	147,057.25
14	Forgings, . . . . .	128,349.00	168,489.00	114,552.00
15	General Hardware, . . . .	1,576,172.98	1,130,384.98	824,011.80
16	Hats, . . . . .	1,015,782.96	667,777.55	489,398.60
17	Hatters' Tools, . . . . .	10,493.00	8,325.00	23,187.66
18	Iron Foundries, . . . . .	124,979.52	120,318.17	136,365.17
19	Iron, Malleable, . . . . .	129,935.69	111,291.57	147,603.37
20	Ivory Goods, . . . . .	61,897.00	66,710.00	52,400.00
21	Knit Goods, . . . . .	278,129.04	395,307.98	409,080.64
22	Leather Goods, . . . . .	39,468.37	39,018.37	35,318.37
23	Machine Shops, . . . . .	1,271,382.62	1,330,039.88	1,184,998.38
24	Newspapers (daily), . . .	57,115.00	60,445.00	73,893.00
25	Organs and Pianos, . . . .	131,000.00	135,000.00	93,565.00
26	Paper Boxes, . . . . .	106,174.25	97,098.79	103,848.50
27	Paper Mills, . . . . .	240,987.64	334,398.04	348,120.58
28	Patterns, . . . . .	3,552.00	3,700.00	3,200.00
29	Printing and Publishing, . .	86,123.00	71,702.41	96,339.04
30	Rubber Goods, . . . . .	544,741.25	424,741.25	319,697.13



## MENTS, 1891, 1890 AND 1889 COMPARED.—CONTINUED.

Net Profits.			Superintendence, Including all Non-Producers.			
1891.	1890.	1889.	1891.	1890.	1889.	
\$ 151,126.29	\$ 157,588.29	\$ 111,366.66	\$ 41,600.00	\$ 41,303.33	\$ 40,030.00	1
48,666.69	51,515.51	42,486.00	20,300.00	21,500.00	35,324.00	2
46,549.40	37,750.52	60,298.34	18,700.00	24,465.00	18,300.00	3
1,830,062.98	1,674,993.44	1,728,006.55	952,745.00	945,047.42	906,664.00	4
9,932.00	8,998.63	8,465.00	6,600.00	6,640.00	7,100.00	5
38,768.65	35,257.76	22,033.85	44,261.17	37,050.17	40,718.26	6
296,798.40	238,367.10	248,111.00	143,755.00	135,905.00	131,845.00	7
12,978.00	15,125.00	14,960.00	7,300.00	6,500.00	6,500.00	8
150,424.00	80,040.08	48,673.82	95,000.00	88,722.20	104,708.80	9
297,380.50	347,693.00	319,020.00	240,458.00	182,850.00	199,454.00	10
1,988,748.99	1,610,063.55	1,186,057.58	392,784.63	332,152.63	390,702.98	11
34,286.00	18,200.00	15,177.00	11,700.00	10,810.00	10,900.00	12
136,804.55	86,266.00	122,283.74	88,134.70	70,429.74	52,008.45	13
125,218.00	164,315.41	111,607.00	33,200.00	40,839.00	23,450.00	14
1,421,467.71	984,932.15	671,975.40	445,463.56	487,913.14	445,958.94	15
871,246.64	560,580.33	395,918.11	243,779.24	222,343.73	213,176.48	16
7,711.00	5,060.00	19,662.66	4,800.00	6,550.00	2,500.00	17
101,704.52	96,853.17	113,385.05	54,590.00	48,050.00	46,774.60	18
112,978.69	94,953.66	128,842.26	77,000.00	76,158.64	65,148.00	19
52,013.00	59,158.00	47,950.00	26,978.00	23,550.00	20,250.00	20
179,271.14	329,667.98	343,709.14	162,638.00	130,500.00	130,300.00	21
22,550.44	22,112.44	18,520.44	17,317.00	17,217.00	18,293.00	22
1,100,725.91	1,172,460.23	1,019,694.23	455,261.77	456,388.53	419,516.88	23
32,524.00	36,491.00	49,939.00	45,750.00	44,760.00	44,760.00	24
111,000.00	115,000.00	74,578.00	44,450.00	44,450.00	42,742.00	25
89,580.25	82,101.79	86,208.50	44,450.00	44,445.00	44,545.00	26
182,058.12	292,966.47	312,322.22	65,178.30	60,590.00	76,530.00	27
3,061.00	3,209.00	2,759.00	3,200.00	3,200.00	4,000.00	28
75,258.00	57,295.37	81,254.15	38,750.00	36,150.00	36,550.00	29
322,881.14	205,881.14	201,500.76	147,000.00	144,000.00	143,980.98	30

TABLE V.—ABSTRACT OF SAME 624 ESTABLISH-

	INDUSTRIES.	Gross Profits.		
		1891.	1890.	1889.
31	Sash, Doors and Blinds, . . .	\$ 12,382.00	\$ 12,132.00	\$ 11,650.00
32	Saw and Grist Mills, . . .	50,200.00	51,719.00	41,150.00
33	Shoes, . . . . .	118,638.76	115,100.64	106,579.30
34	Silks, . . . . .	845,375.40	1,026,769.67	902,018.00
35	Silver Plating, . . . . .	1,293,317.37	1,230,224.36	923,452.57
36	Spring Beds and Mattresses, .	47,350.00	47,725.00	48,725.00
37	Tinware and Toys, . . . . .	30,935.00	33,650.00	50,768.35
38	Wire Goods, . . . . .	54,114.75	45,250.00	52,412.00
39	Wooden Ware, . . . . .	61,442.00	81,650.00	64,753.00
40	Woolen Goods, . . . . .	1,489,306.54	1,332,942.11	1,226,081.94
	Totals, . . . . .	15,958,942.41	14,693,642.09	12,778,267.12

## MENTS, 1891, 1890 AND 1889 COMPARED.—CONTINUED.

Net Profits.			Superintendence, Including all Non-Producers.			
1891.	1890.	1889.	1891.	1890.	1889.	
\$ 8,480.85	\$ 8,240.00	\$ 7,758.00	\$ 5,750.00	\$ 5,900.00	\$ 4,900.00	31
45,300.00	46,779.00	34,720.00	5,605.00	5,605.00	10,080.00	32
95,190.76	90,913.49	86,246.30	71,703.74	71,613.74	78,949.83	33
726,249.94	924,429.72	812,210.05	288,527.66	289,053.93	258,002.44	34
1,130,917.58	1,076,692.68	760,602.36	483,847.85	473,319.15	481,073.27	35
42,181.00	43,925.00	44,975.00	25,600.00	17,375.00	17,975.00	36
20,603.00	25,688.00	43,133.09	22,150.00	20,700.00	20,452.00	37
48,675.75	41,828.00	47,905.00	16,200.00	15,060.00	26,588.00	38
57,246.00	75,555.00	59,851.14	16,775.00	26,175.00	18,400.00	39
1,110,840.70	985,565.79	921,015.63	235,790.00	266,868.50	241,771.00	40
13,139,471.59	11,964,513.70	10,425,182.03	5,145,093.62	4,972,150.85	4,880,923.00	

TABLE V.—ABSTRACT OF SAME 624 ESTABLISH-

	INDUSTRIES.	Wages.			Number in Superintendence, including Non-Producers.		
		1891.	1890.	1889.	1891.	1890.	1889.
1	Arms and Ammunition, . . .	\$ 438,354.59	\$ 372,755.78	\$ 336,887.70	26	27	28
2	Bakeries, . . . . .	63,759.00	69,800.00	60,920.00	30	32	37
3	Bells, . . . . .	95,873.00	115,984.17	99,416.00	18	22	18
4	Brass, . . . . .	5,720,626.10	5,907,670.67	5,324,181.18	670	678	651
5	Brooms and Brushes, . .	20,160.00	18,525.00	19,550.00	8	8	8
6	Buttons, . . . . .	146,814.07	141,199.46	127,321.99	43	33	39
7	Carriages, . . . . .	911,650.73	906,019.30	849,345.57	106	106	90
8	Chemical Products, . .	12,500.00	16,500.00	13,500.00	5	5	6
9	Clocks, . . . . .	848,330.37	845,613.25	819,502.50	56	65	81
10	Corsets, . . . . .	1,374,207.00	1,205,980.00	1,168,600.00	250	190	192
11	Cotton Goods, . . . .	3,041,810.73	2,978,431.78	2,898,643.35	335	335	229
12	Cutlery, . . . . .	109,800.00	101,605.00	85,640.00	10	10	10
13	Electrical Supplies, . .	172,085.18	162,649.99	139,668.60	113	81	70
14	Forgings, . . . . .	203,760.00	246,134.00	176,136.00	22	29	21
15	General Hardware, . .	2,743,507.96	2,865,914.38	2,902,674.50	465	473	329
16	Hats, . . . . .	3,323,452.50	3,040,406.17	2,838,787.79	227	215	215
17	Hatters' Tools, . . . .	17,344.00	19,164.00	19,304.00	4	5	3
18	Iron Foundries, . . . .	428,201.29	357,343.00	347,192.37	49	38	35
19	Iron, Malleable, . . . .	599,983.75	593,431.00	636,595.36	59	59	58
20	Ivory Goods, . . . . .	252,290.00	233,140.00	213,350.00	20	20	19
21	Knit Goods, . . . . .	1,028,738.84	877,525.68	818,935.53	138	115	111
22	Leather Goods, . . . .	136,837.00	131,787.00	124,355.40	23	23	23
23	Machine Shops, . . . .	2,736,257.25	2,730,984.79	2,540,533.72	378	378	352
24	Newspapers (daily), . .	228,747.00	221,536.00	221,516.00	43	42	42
25	Organs and Pianos, . .	439,500.00	455,000.00	348,423.00	33	33	31
26	Paper Boxes, . . . . .	318,863.00	326,531.00	340,793.53	38	38	38
27	Paper Mills, . . . . .	491,340.64	461,415.00	504,178.39	62	47	57
28	Patterns, . . . . .	9,278.00	8,600.00	8,250.00	3	3	6
29	Printing and Publishing, .	180,465.00	172,491.18	176,638.42	32	31	29
30	Rubber Goods, . . . . .	1,462,210.10	1,417,210.10	1,299,834.83	105	104	105



## MENTS, 1891, 1890 AND 1889 COMPARED.—CONCLUDED.

INDUSTRIES.		Wages.			Number in Superintendence, including Non-Producers.		
		1891.	1890.	1889.	1891.	1890.	1889.
31	Sash, Doors and Blinds, . .	\$ 42,048.00	\$ 42,148.00	\$ 43,400.00	6	6	5
32	Saw and Grist Mills, . .	23,390.00	23,390.00	25,380.00	5	5	6
33	Shoes, . . . . .	397,515.00	390,613.56	395,944.90	63	63	67
34	Silks, . . . . .	1,547,675.39	1,570,973.40	1,417,764.02	161	117	170
35	Silver Plating, . . . .	2,398,210.05	2,320,434.69	2,050,238.02	376	375	375
36	Spring Beds and Mattresses,	66,500.00	70,850.00	70,222.00	20	15	16
37	Tinware and Toys, . .	119,142.00	122,409.00	119,992.21	26	26	26
38	Wire Goods, . . . . .	149,706.00	58,480.00	135,181.00	18	18	22
39	Wooden Ware, . . . .	76,742.00	113,825.40	91,206.00	12	17	12
40	Woolen Goods, . . . .	2,759,973.58	2,654,799.04	2,623,423.64	158	188	180
Totals, . . . . .		35,137,649.12	34,369,270.79	32,433,427.52	4,216	4,075	3,812

TABLE VI.—PERCENTAGES SAME 624 ES.

	INDUSTRIES.	Per cent. net profits of capital.			Per cent. wages of cost of goods manufactured.		
		1891.	1890.	1889.	1891.	1890.	1889.
1	Arms and Ammunition, .	12.50	13.20	9.76	41.31	38.69	39.06
2	Bakeries, . . . . .	17.21	17.73	15.45	12.71	12.99	13.06
3	Bells, . . . . .	14.40	12.71	19.06	24.65	30.57	28.63
4	Brass, . . . . .	8.99	8.41	9.19	20.42	21.34	23.29
5	Brooms and Brushes, .	16.40	14.17	13.43	26.62	24.60	23.64
6	Buttons, . . . . .	12.28	12.24	7.70	35.21	37.24	36.73
7	Carriages, . . . . .	9.40	11.08	12.13	35.30	34.28	36.25
8	Chemical Products, . .	23.59	21.92	21.32	13.73	15.88	11.56
9	Clocks, . . . . .	6.09	3.27	2.13	45.27	45.12	49.68
10	Corsets, . . . . .	10.49	12.54	12.52	28.50	28.67	29.51
11	Cotton, . . . . .	10.01	7.96	6.02	25.01	24.76	25.25
12	Cutlery, . . . . .	17.05	11.74	10.11	59.28	59.41	58.72
13	Electrical Supplies, .	13.67	8.48	13.48	13.41	13.16	14.32
14	Forgings, . . . . .	21.64	22.61	19.52	35.52	34.31	34.16
15	General Hardware, . .	18.72	13.42	8.81	36.98	39.50	37.99
16	Hats, . . . . .	21.13	16.44	12.10	39.77	36.17	36.99
17	Hatters' Tools, . . .	11.17	6.98	23.95	29.13	24.74	34.65
18	Iron Foundries, . . .	12.01	11.63	14.77	45.96	39.52	39.76
19	Iron, Malleable. . . .	9.73	8.83	6.46	42.20	43.68	42.67
20	Ivory Goods, . . . .	11.82	12.07	9.70	29.05	27.68	29.75
21	Knit Goods, . . . . .	7.01	14.11	15.46	28.68	27.75	27.12
22	Leather Goods, . . . .	7.29	7.41	6.29	29.80	28.11	26.19
23	Machine Shops, . . . .	12.11	13.10	12.13	42.78	43.29	44.89
24	Newspapers (daily), . .	6.11	6.89	9.43	40.58	49.49	51.62
25	Organs and Pianos, . .	9.20	9.61	6.80	38.25	39.91	31.77
26	Paper Boxes, . . . . .	18.47	17.61	17.55	39.74	39.73	40.94
27	Paper Mills, . . . . .	8.33	14.18	15.09	20.68	23.79	24.62
28	Patterns, . . . . .	15.70	16.80	15.68	51.09	49.73	50.03
29	Printing and Publishing,	10.24	8.12	11.61	43.77	44.20	44.48
30	Rubber Goods, . . . .	5.22	3.38	3.38	26.33	26.01	25.77
31	Sash, Doors, and Blinds,	9.11	8.86	8.43	27.30	27.35	28.13

## TABLISHMENTS, 1891, 1890, AND 1889.

Per cent. superintendence of cost of goods manufactured.			Per cent. value stock and materials of value of goods manufactured.			Per cent. value stock and materials of cost of goods manufactured.			
1891.	1890.	1889.	1891.	1890.	1889.	1891.	1890.	1889.	
3.92	4.28	4.64	29.99	29.52	29.44	34.25	34.35	33.23	1
4.04	3.99	7.57	63.55	64.74	65.57	69.71	70.95	71.54	2
4.80	6.44	5.27	46.47	49.28	52.04	52.04	54.18	61.08	3
3.40	3.41	3.96	63.79	64.08	60.11	67.95	67.96	64.65	4
8.71	9.07	8.16	53.27	54.95	59.61	60.25	61.52	60.54	5
10.61	9.70	10.66	39.49	37.48	36.81	43.16	40.94	39.15	6
5.56	5.14	5.62	44.85	46.37	44.25	50.00	50.55	48.99	7
8.02	6.25	6.30	62.02	60.51	61.01	70.86	69.41	69.87	8
5.07	4.73	6.34	41.51	42.52	38.41	44.83	44.03	39.54	9
4.98	4.34	5.03	57.79	57.49	56.35	61.35	62.25	60.89	10
3.23	2.76	3.40	54.78	55.28	53.63	63.74	62.68	58.30	11
6.31	6.32	7.47	24.66	24.15	23.57	29.23	26.72	26.02	12
6.86	5.69	5.32	62.35	63.89	61.29	69.00	68.34	68.98	13
5.78	5.69	4.55	41.59	41.33	40.83	50.67	50.80	49.67	14
6.00	6.52	5.83	38.77	40.79	41.63	46.20	46.32	45.29	15
2.76	2.64	2.77	49.24	51.16	51.89	54.11	54.53	54.57	16
8.06	8.45	4.49	37.92	36.00	30.06	42.82	38.35	40.66	17
5.86	5.31	5.35	42.73	43.13	44.08	47.39	47.75	49.81	18
5.41	5.60	4.36	38.57	38.17	38.13	41.63	40.84	41.43	19
3.10	2.79	2.82	61.94	62.53	61.29	65.63	66.92	65.38	20
4.53	4.12	3.87	56.44	56.89	55.39	59.25	62.82	61.70	21
3.77	3.67	3.85	56.19	57.16	59.88	58.95	59.86	61.79	22
7.10	7.23	7.41	32.83	32.88	33.82	38.47	38.99	39.91	23
9.86	10.00	10.31	23.61	23.35	23.36	25.25	25.26	26.27	24
3.86	3.89	3.89	46.75	51.07	53.38	51.26	56.22	57.02	25
5.53	5.39	5.35	43.68	45.05	44.15	48.55	49.66	48.72	26
2.74	3.12	3.73	56.11	51.76	51.60	59.99	59.50	59.47	27
17.62	17.92	25.25	21.04	20.97	18.96	24.59	24.86	22.13	28
9.39	9.26	9.19	34.72	34.66	32.46	41.06	39.58	39.09	29
2.64	2.64	2.85	61.13	62.75	62.00	64.69	65.12	64.48	30
3.73	3.82	3.07	57.42	57.46	57.70	60.58	60.54	60.60	31

TABLE VI.—PERCENTAGES SAME 624 ES.

INDUSTRIES.		Per cent. net profits of capital.			Per cent. wages of cost of goods manufactured.		
		1891.	1890.	1889.	1891.	1890.	1889.
32	Saw and Grist Mills, .	2.04	16.64	12.62	4.73	5.00	6.98
33	Shoes, . . . . .	15.15	13.72	13.75	30.36	30.44	31.25
34	Silk, . . . . .	9.53	13.03	12.03	19.25	19.63	18.62
35	Silver Plating, . . .	10.88	10.67	7.66	28.06	28.60	26.44
36	Spring Beds and Mat- tresses, . . . . .	12.86	14.12	14.50	19.86	23.53	23.66
37	Tinware and Toys, . .	6.89	7.21	12.18	26.98	28.99	31.02
38	Wire Goods, . . . .	20.45	17.35	14.11	22.48	18.27	17.57
39	Wooden Ware, . . . .	15.18	16.67	14.82	29.93	27.55	24.70
40	Woolen Goods, . . . .	8.56	7.68	7.57	21.15	21.65	22.09
General Percentage, .		10.63	10.01	8.51	27.45	27.47	28.38



## TABLISHMENTS, 1891, 1890, AND 1889.—CONTINUED.

Per cent. superintendence of cost of goods manufactured.			Per cent. value stock and materials of value of goods manufactured.			Per cent. value stock and materials of cost of goods manufactured.			
1891.	1890.	1889.	1891.	1890.	1889.	1891.	1890.	1889.	
1.13	1.19	2.77	82.95	82.63	77.06	90.56	90.55	84.42	32
5.47	5.50	6.23	56.09	56.56	56.02	60.17	60.57	59.83	33
3.58	3.61	3.39	62.43	63.31	66.05	67.57	76.31	73.10	34
5.66	5.83	6.35	45.05	45.12	48.72	51.01	51.11	53.61	35
7.64	5.77	6.05	56.89	51.16	51.00	64.06	58.62	58.73	36
5.01	4.90	5.28	56.84	50.52	50.61	59.49	53.59	56.26	37
2.43	4.70	3.45	61.57	55.59	67.63	66.08	62.85	71.85	38
6.81	6.33	4.98	47.83	32.16	33.75	58.95	38.04	39.22	39
1.80	2.17	2.04	60.52	61.27	59.91	65.66	66.20	64.56	40
4.01	4.01	4.27	53.90	54.42	53.54	59.42	59.68	58.42	

TABLE VI.—PERCENTAGES SAME 624 ESTAB-

	INDUSTRIES.	Per cent. of cost of manufacture (less rent, interest, and taxes), of value of goods manufactured.		
		1891.	1890.	1889.
1	Arms and Ammunition, . . . . .	54.99	53.91	56.11
2	Bakeries, . . . . .	25.10	23.99	23.81
3	Bells, . . . . .	41.70	40.29	32.09
4	Brass, . . . . .	28.58	28.46	31.47
5	Brooms and Brushes, . . . . .	34.21	32.99	30.60
6	Buttons, . . . . .	50.25	52.25	55.15
7	Carriages, . . . . .	42.55	43.06	43.75
8	Chemical Products, . . . . .	24.47	25.84	25.35
9	Clocks, . . . . .	48.32	50.59	56.92
10	Corsets, . . . . .	34.71	33.24	34.55
11	Cotton, . . . . .	28.59	30.00	33.98
12	Cutlery, . . . . .	57.08	63.42	64.07
13	Electrical Supplies, . . . . .	26.19	27.78	25.29
14	Forgings, . . . . .	40.03	39.54	40.90
15	General Hardware, . . . . .	43.39	45.49	48.45
16	Hats, . . . . .	40.25	41.38	42.03
17	Hatters' Tools, . . . . .	46.48	53.92	39.17
18	Iron Foundries, . . . . .	45.17	44.84	42.08
19	Iron, Malleable, . . . . .	52.96	54.16	52.75
20	Ivory Goods, . . . . .	31.34	30.06	31.86
21	Knit Goods, . . . . .	36.17	31.78	32.44
22	Leather Goods, . . . . .	35.61	34.88	32.96
23	Machine Shops, . . . . .	50.22	49.33	48.43
24	Newspapers (daily), . . . . .	64.88	64.15	61.38
25	Organs and Pianos, . . . . .	42.85	38.16	38.62
26	Paper Boxes, . . . . .	44.42	44.22	44.54
27	Paper Mills, . . . . .	34.46	33.39	33.64
28	Patterns, . . . . .	62.21	60.97	64.42
29	Printing and Publishing, . . . . .	47.61	49.30	47.40
30	Rubber Goods, . . . . .	29.59	29.73	31.89
31	Sash, Doors, and Blinds, . . . . .	34.95	35.05	35.10

## LISHMENTS, 1891, 1890, AND 1889.—CONTINUED.

Per cent. of rent, interest, and taxes, of value of goods manufactured.			Per cent. of net profits of value of goods manufactured.			Per cent. of superintendence of wages.			
1891.	1890.	1889.	1891.	1890.	1889.	1891.	1890.	1889.	
2.56	2.50	3.01	12.46	14.05	11.43	9.49	10.81	11.88	1
2.50	2.51	2.26	8.85	8.75	8.34	31.84	30.80	57.97	2
1.14	1.37	1.06	10.69	9.04	14.79	19.50	21.09	18.40	3
1.45	1.75	1.38	6.18	5.70	7.02	16.65	15.99	17.02	4
.92	1.36	.85	11.60	10.67	8.87	32.74	35.80	36.32	5
1.74	1.80	2.05	8.52	8.45	5.97	30.15	26.23	31.98	6
2.29	2.28	2.39	10.31	8.27	9.57	15.77	15.00	15.52	7
1.04	.94	.95	12.47	12.70	12.68	58.40	39.39	48.14	8
2.74	2.77	1.79	7.43	4.10	2.86	11.20	10.49	12.77	9
1.68	1.61	1.63	5.82	7.63	7.45	17.50	15.16	17.06	10
2.57	2.89	3.08	14.06	11.80	9.36	12.91	11.15	13.47	11
2.64	2.79	2.93	15.62	9.61	9.42	10.66	10.63	12.72	12
1.82	1.80	2.25	9.64	6.52	11.14	51.22	43.36	37.95	13
.45	.47	.47	17.93	18.63	17.79	16.29	16.59	13.31	14
1.76	1.76	1.83	16.08	11.95	8.08	16.24	17.02	15.36	15
1.49	1.19	1.15	9.02	6.25	4.90	7.34	7.31	7.50	16
4.14	3.95	4.67	11.46	6.13	26.08	27.68	34.10	12.95	17
2.20	2.34	2.33	9.84	9.67	11.49	12.75	13.44	13.47	18
1.11	1.12	1.15	7.36	6.53	7.94	12.83	12.83	10.23	19
1.07	.83	.58	5.65	6.56	6.26	8.31	10.10	9.49	20
2.63	1.87	1.94	4.76	9.43	10.22	15.81	14.87	15.91	21
3.52	3.44	3.40	4.68	4.50	3.75	12.66	13.06	14.71	22
2.27	2.10	2.47	14.68	15.67	15.26	16.67	16.71	16.51	23
4.95	4.94	4.95	6.56	7.53	10.31	20.00	20.20	20.20	24
1.59	1.59	1.62	8.81	9.15	6.36	10.11	9.76	12.26	25
1.86	1.65	1.92	10.04	9.05	9.38	13.94	13.61	13.07	26
2.31	1.83	1.51	7.12	13.00	13.23	13.27	10.96	15.18	27
2.32	2.39	2.29	14.43	15.65	14.33	34.49	37.20	48.48	28
2.23	3.21	3.15	15.44	12.80	17.00	21.47	20.95	20.69	29
3.77	3.87	2.25	5.51	3.64	3.84	10.05	10.16	11.07	30
2.41	2.39	2.40	5.22	5.08	4.78	13.67	13.99	11.29	31

TABLE VI.—PERCENTAGES SAME 624 ESTAB-

	INDUSTRIES.	Per cent. of cost of manufacture (less rent, interest, and taxes), of value of goods manufactured.		
		1891.	1890.	1889.
32	Saw and Grist Mills, . . . . .	7.73	7.69	12.60
33	Shoes, . . . . .	35.45	35.05	36.09
34	Silk, . . . . .	27.92	25.18	23.24
35	Silver Plating, . . . . .	41.58	41.48	40.20
36	Spring Beds and Mattresses, . . . . .	30.54	35.00	34.73
37	Tinware and Toys, . . . . .	36.46	41.96	37.57
38	Wire Goods, . . . . .	30.84	31.90	25.94
39	Wooden Ware, . . . . .	31.93	51.12	51.15
40	Woolen Goods, . . . . .	28.96	28.66	30.50
	General Percentage, . . . . .	34.80	34.75	36.21



## LISHMENTS, 1891, 1890, AND 1889.—CONCLUDED.

Per cent. of rent, interest, and taxes of value of goods manufactured.			Per cent. of net profits of value of goods manufactured.			Per cent. of superintendence of wages.			
1891.	1890.	1889.	1891.	1890.	1889.	1891.	1890.	1889.	
.91	.92	1.61	8.41	8.74	8.72	23.96	23.96	39.71	32
1.68	1.76	1.50	6.78	6.61	6.38	18.04	18.33	19.94	33
1.36	1.14	1.06	8.29	10.35	9.64	18.64	18.39	18.18	34
1.69	1.67	1.95	11.68	11.71	9.12	20.17	20.39	23.46	35
1.38	1.10	1.09	11.19	12.73	11.16	38.49	24.52	25.59	36
2.22	1.78	1.77	4.48	5.73	10.03	18.59	16.91	17.04	37
.77	.94	.55	6.82	11.56	5.86	10.82	25.75	19.67	38
1.38	1.24	1.14	18.86	15.46	13.95	21.86	22.99	20.17	39
2.68	2.62	2.38	7.84	7.43	7.19	8.54	10.05	9.21	40
1.99	2.01	1.88	9.31	8.82	8.36	14.64	14.46	15.04	

TABLE VII.—ABSTRACT OF SAME 238 ESTABLISHMENTS,

	INDUSTRIES.	Number of Establishments.				Number of Employees.			
		1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.
1	Bakeries, . . .	4	4	4	4	110	120	105	102
2	Brass, . . .	28	28	28	28	10,954	10,155	9,772	9,204
3	Carriages, . . .	6	6	6	6	610	615	535	590
4	Clocks, . . .	3	3	3	3	1,455	1,451	1,475	1,472
5	Corsets, . . .	5	5	5	5	2,694	2,526	2,830	2,669
6	Cotton Goods, .	32	32	32	32	9,541	8,779	7,834	7,819
7	Cutlery, . . .	2	2	2	2	130	110	80	88
8	Forgings, . . .	2	2	2	2	225	225	215	185
9	General Hardware, }	27	27	27	27	5,090	5,066	5,457	4,938
10	Hats, . . .	18	18	18	18	3,920	3,844	3,586	3,641
11	Iron Foundries, .	7	7	7	7	672	665	577	436
12	Iron, Malleable, .	3	3	3	3	1,105	1,095	1,030	939
13	Knit Goods, . .	12	12	12	12	2,212	2,059	2,121	2,086
14	Machine Shops, .	21	21	21	21	4,071	4,020	3,313	3,155
15	Paper Boxes, . .	6	6	6	6	430	551	393	367
16	Paper Mills, . .	4	4	4	4	375	370	330	370
17	Printing and } Publishing, }	3	3	3	3	235	226	231	223
18	Rubber Goods, . .	4	4	4	4	2,460	2,445	2,004	2,053
19	Shoes, . . .	4	4	4	4	505	651	476	497
20	Silk, . . .	13	13	13	13	3,720	4,021	3,529	3,407
21	Silver Plating, .	11	11	11	11	3,555	3,512	3,467	3,147
22	Woolen Goods, . .	23	23	23	23	5,770	5,417	5,721	5,469
	Totals, . . .	238	238	238	238	59,839	57,923	55,131	52,827

1891, 1890, 1889, AND 1888, COMPARED.

Capital Employed.				
1891.	1890.	1889.	1888.	
\$ 274,000.00	\$ 234,000.00	\$ 270,000.00	\$ 303,534.87	1
15,900,000.00	15,250,657.10	14,590,743.88	14,709,826.00	2
1,123,000.00	1,123,000.00	903,000.00	928,385.00	3
2,445,000.00	2,422,711.43	2,252,651.87	2,228,838.91	4
1,925,000.00	1,900,000.00	1,880,000.00	1,408,000.00	5
19,333,359.00	18,086,016.47	16,315,371.46	16,132,034.46	6
101,000.00	90,000.00	85,000.00	88,000.00	7
450,000.00	400,000.00	441,000.00	459,183.77	8
6,225,491.90	6,148,707.47	7,145,941.01	6,970,512.10	9
2,577,745.85	2,160,404.79	2,130,750.00	2,521,664.99	10
846,500.00	808,275.00	726,846.20	656,488.55	11
965,806.44	891,566.74	903,542.56	767,686.84	12
1,873,000.00	1,727,000.00	1,736,809.00	1,841,206.00	13
7,664,778.76	7,676,338.24	6,724,180.12	6,615,840.12	14
220,000.00	275,000.00	185,000.00	170,000.00	15
1,050,000.00	1,025,000.00	1,014,829.00	1,007,043.00	16
555,000.00	536,252.17	538,031.61	522,767.34	17
4,445,000.00	4,475,000.00	4,306,260.54	4,367,114.00	18
425,000.00	525,000.00	379,828.00	354,300.00	19
7,211,437.00	6,574,793.00	6,458,640.06	6,402,215.50	20
9,046,649.14	8,623,122.00	9,339,284.23	8,163,128.37	21
9,700,125.60	9,519,449.54	9,278,437.40	8,943,752.44	22
94,357,893.09	90,552,293.95	87,606,147.03	85,563,522.26	

TABLE VII.—ABSTRACT OF SAME 238 ESTABLISHMENTS,

	INDUSTRIES.	Value of Goods Manufactured.			
		1891.	1890.	1889.	1888.
1	Bakeries, . . .	\$ 530,166.56	\$ 568,916.56	\$ 490,000.00	\$ 509,359.55
2	Brass, . . .	25,668,294.56	24,502,136.78	21,278,748.89	20,190,876.91
3	Carriages, . . .	1,279,049.00	1,280,000.00	1,070,000.00	1,117,847.00
4	Clocks, . . .	1,928,000.00	1,857,940.80	1,602,017.50	1,519,768.22
5	Corsets, . . .	3,694,600.00	3,239,800.00	3,243,092.00	2,925,000.00
6	Cotton Goods, .	12,170,999.07	10,006,710.82	9,409,524.39	9,534,063.50
7	Cutlery, . . .	110,000.00	92,000.00	71,000.00	59,500.00
8	Forgings, . . .	520,000.00	485,000.00	450,900.00	354,213.75
9	General Hardware,	6,703,110.48	6,618,122.94	7,223,895.05	6,856,757.87
10	Hats, . . .	6,013,676.28	5,495,920.00	5,010,776.85	5,542,773.74
11	Iron Foundries, .	1,233,685.00	1,105,927.67	898,571.10	813,306.17
12	Iron, Malleable, .	1,304,633.69	1,228,364.98	1,385,855.40	1,017,619.96
13	Knit Goods, . . .	2,675,358.01	2,381,700.00	2,401,024.00	2,379,039.91
14	Machine Shops, .	6,218,416.41	6,217,195.08	4,948,364.90	4,690,525.24
15	Paper Boxes, . .	408,000.00	547,997.58	399,000.00	392,000.00
16	Paper Mills, . .	946,350.00	916,350.00	1,049,499.67	1,037,565.18
17	Printing and Publishing, }	307,000.00	293,004.61	332,923.27	255,432.75
18	Rubber Goods, . .	3,240,753.00	3,090,753.19	2,633,761.15	3,497,457.58
19	Shoes, . . .	844,300.00	1,047,660.00	834,958.27	845,775.04
20	Silk, . . .	7,416,912.65	7,973,698.25	7,479,589.98	6,704,350.66
21	Silver Plating, .	8,191,331.10	7,617,959.76	7,192,752.14	6,491,973.00
22	Woolen Goods, . .	10,026,679.59	9,342,924.13	9,166,067.45	8,813,927.40
	Totals, . . .	101,431,315.40	95,910,083.15	88,572,332.01	85,549,133.43

1891, 1890, 1889, AND 1888, COMPARED.—CONTINUED.

Value of Stock and Materials.				Cost of Manufacture, less Rent, Interest, and Taxes.				
1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	
\$ 338,940.00	\$ 370,625.00	\$ 323,260.00	\$ 340,853.74	\$ 132,463.32	\$ 135,793.32	\$ 115,712.00	\$ 110,346.10	1
16,616,652.85	16,161,561.56	13,860,894.63	12,039,148.89	6,982,469.80	6,456,880.69	6,472,103.16	6,378,555.53	2
543,495.00	552,000.00	458,100.00	470,775.00	559,422.00	558,795.00	495,795.00	522,395.00	3
790,000.00	780,991.32	602,250.78	570,617.65	956,000.00	946,549.98	924,556.75	883,932.60	4
2,148,000.00	1,916,000.00	1,849,500.00	1,526,000.00	1,263,600.00	1,043,500.00	1,135,050.00	1,164,000.00	5
6,402,444.85	5,140,279.37	4,727,309.76	4,781,689.80	3,527,552.76	3,468,613.32	3,376,468.11	3,335,972.76	6
28,000.00	19,600.00	13,700.00	12,100.00	70,500.00	62,100.00	46,000.00	42,800.00	7
208,000.00	193,000.00	174,383.00	165,536.17	206,000.00	189,000.00	186,422.00	149,547.88	8
2,730,073.59	2,528,217.15	2,893,526.54	2,733,982.33	3,337,494.09	3,280,050.93	3,710,444.72	3,463,885.73	9
2,858,942.52	2,509,725.02	2,302,717.15	2,774,761.86	2,613,966.36	2,507,672.96	2,366,199.02	2,389,549.92	10
546,047.00	498,779.50	399,474.05	339,578.37	544,395.00	490,830.00	379,431.08	381,878.12	11
513,950.00	476,748.09	540,650.58	359,423.19	680,748.00	654,825.32	738,382.45	568,979.57	12
1,213,715.33	1,208,000.00	1,286,526.00	1,267,360.00	888,744.42	751,500.00	806,492.79	784,486.00	13
2,364,657.65	2,012,017.10	1,689,270.25	1,606,298.79	3,091,156.77	3,101,326.81	2,410,342.53	2,289,115.99	14
214,500.00	261,015.00	192,500.00	190,625.00	174,350.00	233,100.00	159,900.00	151,250.00	15
482,934.60	483,934.60	576,218.27	428,227.31	302,750.14	291,750.14	335,922.82	476,675.60	16
108,700.00	103,592.87	114,092.27	92,788.48	140,900.00	136,532.33	143,884.96	138,334.86	17
1,804,141.84	1,784,141.84	1,469,739.36	2,263,782.32	1,055,170.10	1,037,170.10	973,429.23	1,091,098.39	18
478,712.00	602,812.73	471,541.30	505,312.99	294,647.00	364,631.68	300,200.43	299,811.20	19
4,604,530.14	4,916,891.34	4,815,550.30	4,099,457.53	2,172,543.37	2,061,653.63	1,799,006.04	1,749,530.92	20
3,896,183.61	3,584,331.47	3,605,312.57	3,243,635.51	3,306,023.39	3,050,762.22	2,835,507.83	2,523,234.38	21
5,974,511.22	5,755,900.54	5,488,849.93	5,358,453.54	3,037,304.86	2,785,859.19	2,797,190.30	2,573,912.38	22
54,867,132.20	51,860,164.51	47,855,366.79	45,170,408.47	35,338,201.38	33,608,897.62	32,508,441.22	31,469,292.93	



TABLE VII.—ABSTRACT OF SAME 238 ESTABLISHMENTS.

	INDUSTRIES.	Rent, Interest, and Taxes.			
		1891.	1890.	1889.	1888.
1	Bakeries, . . . . .	\$ 13,311.55	\$ 14,323.05	\$ 11,092.00	\$ 11,092.00
2	Brass, . . . . .	391,318.99	364,214.76	313,089.74	348,462.04
3	Carriages, . . . . .	29,635.00	30,000.00	19,250.00	18,900.00
4	Clocks, . . . . .	53,120.00	51,913.41	28,090.15	26,700.45
5	Corsets, . . . . .	65,256.00	54,050.00	53,413.00	46,500.00
6	Cotton Goods, . . . . .	333,111.16	334,329.66	296,666.17	281,457.15
7	Cutlery, . . . . .	3,200.00	2,700.00	2,450.00	2,150.00
8	Forgings, . . . . .	2,050.00	2,100.00	1,660.00	2,668.44
9	General Hardware, . . . . .	137,573.75	127,647.93	133,469.94	136,838.75
10	Hats, . . . . .	101,453.06	98,736.92	66,064.53	47,761.85
11	Iron Foundries, . . . . .	20,095.00	19,165.00	18,180.12	10,682.97
12	Iron, Malleable, . . . . .	13,722.00	13,087.91	15,011.11	17,092.19
13	Knit Goods, . . . . .	65,010.90	46,425.00	48,101.00	47,200.00
14	Machine Shops, . . . . .	137,230.56	123,887.40	126,463.74	112,848.87
15	Paper Boxes, . . . . .	7,112.00	7,475.00	7,600.00	7,300.00
16	Paper Mills, . . . . .	13,784.38	12,984.38	6,824.36	5,905.75
17	Printing and Publishing, . . . . .	4,455.00	4,592.04	4,649.89	4,422.25
18	Rubber Goods, . . . . .	105,360.11	105,360.11	101,890.80	104,802.09
19	Shoes, . . . . .	15,590.00	14,884.90	13,108.00	13,668.99
20	Silk, . . . . .	79,933.01	93,923.70	82,007.57	66,832.81
21	Silver Plating, . . . . .	110,641.07	117,916.51	121,431.89	149,953.52
22	Woolen Goods, . . . . .	255,966.07	231,812.90	236,451.09	218,030.40
	Totals, . . . . .	1,958,929.61	1,871,530.58	1,706,965.10	1,681,270.52

1891, 1890, 1889, AND 1888, COMPARED.—CONTINUED.

Gross Profits.				Net Profits.				
1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	
\$ 58,763.24	\$ 62,498.24	\$ 51,028.00	\$ 58,159.71	\$ 45,451.69	\$ 48,175.19	\$ 39,936.00	\$ 47,067.71	1
2,069,171.91	1,883,694.53	945,751.10	1,773,172.49	1,677,852.92	1,519,479.77	632,661.36	1,424,710.45	2
176,132.00	169,205.00	116,105.00	124,667.00	146,497.00	139,205.00	96,855.00	105,777.00	3
182,000.00	130,399.49	75,209.97	65,217.97	128,880.00	78,486.08	47,119.82	38,517.52	4
283,000.00	280,300.00	258,542.00	235,000.00	217,744.00	226,250.00	205,129.00	188,500.00	5
2,241,001.46	1,397,818.13	1,305,746.52	1,416,400.94	1,907,890.30	1,063,488.47	1,009,080.35	1,134,943.79	6
11,500.00	10,300.00	11,300.00	4,600.00	8,300.00	7,600.00	8,850.00	2,450.00	7
106,000.00	103,000.00	90,095.00	39,129.70	103,950.00	100,900.00	88,435.00	36,461.26	8
635,542.80	809,854.86	619,923.79	658,889.81	497,969.05	682,206.93	486,453.85	522,051.06	9
540,767.40	478,522.02	341,860.68	378,461.96	439,314.34	379,785.10	275,796.15	330,700.11	10
143,243.00	116,318.17	119,665.97	91,849.68	123,148.00	97,153.17	101,485.85	81,166.71	11
109,935.69	96,791.57	106,822.37	89,207.20	96,213.69	83,703.66	91,811.26	72,125.01	12
572,898.26	422,200.00	308,015.21	327,193.91	507,887.36	375,775.00	259,914.21	279,993.91	13
762,601.99	1,103,851.17	848,752.12	795,110.46	625,371.43	979,963.77	722,288.38	682,261.59	14
19,150.00	53,882.58	46,600.00	50,125.00	12,038.00	46,407.58	39,000.00	42,825.00	15
160,665.26	140,665.26	137,358.58	132,662.27	146,880.88	127,680.88	130,534.22	126,756.52	16
57,400.00	52,879.41	74,946.04	24,309.41	52,945.00	48,287.37	70,296.15	19,887.16	17
381,441.06	269,441.25	190,592.56	142,576.87	276,080.95	164,081.14	88,701.76	37,774.78	18
70,941.00	80,215.59	63,216.54	40,650.85	55,351.00	65,330.69	50,108.54	26,981.86	19
639,839.14	995,153.28	865,033.64	855,362.21	559,906.13	901,229.58	783,026.07	788,529.40	20
989,124.10	982,866.07	751,931.74	725,103.11	878,483.03	864,949.56	630,499.85	575,149.59	21
1,014,863.51	801,164.40	880,027.17	881,561.48	758,897.44	569,351.50	643,576.08	663,531.08	22
11,225,981.82	10,441,021.02	8,208,524.00	8,909,422.03	9,267,052.21	8,569,490.44	6,501,558.90	7,228,161.51	

TABLE VII.—ABSTRACT OF SAME 238 ESTABLISHMENTS.

	INDUSTRIES.	Superintendence, including all Non- Producers.			
		1891.	1890.	1889.	1888.
1	Bakeries, . . . .	\$ 18,600.00	\$ 19,800.00	\$ 33,524.00	\$ 26,948.00
2	Brass, . . . .	800,775.00	745,966.42	769,894.00	720,336.24
3	Carriages, . . . .	59,440.00	59,440.00	53,095.00	53,095.00
4	Clocks, . . . .	89,000.00	82,722.20	98,708.80	99,100.64
5	Corsets, . . . .	190,044.00	113,300.00	167,654.00	200,054.00
6	Cotton Goods, . . .	294,580.63	272,271.13	268,751.61	276,858.98
7	Cutlery, . . . .	7,000.00	6,300.00	6,300.00	6,300.00
8	Forgings, . . . .	19,500.00	19,500.00	19,650.00	21,100.00
9	General Hardware, .	391,754.56	422,683.14	385,455.14	371,279.56
10	Hats, . . . .	182,641.94	146,548.98	157,258.48	160,806.06
11	Iron Foundries, . .	53,000.00	42,250.00	42,774.60	42,332.25
12	Iron, Malleable, . .	66,000.00	64,758.64	48,748.00	40,586.86
13	Knit Goods, . . . .	117,138.00	99,900.00	104,201.00	105,275.00
14	Machine Shops, . .	355,715.49	367,188.53	271,141.04	265,517.04
15	Paper Boxes, . . . .	9,700.00	24,695.00	14,800.00	14,400.00
16	Paper Mills, " . . .	11,970.00	10,999.00	25,400.00	24,900.00
17	Printing and Publishing,	21,000.00	20,700.00	22,300.00	22,000.00
18	Rubber Goods, . . .	86,000.00	84,000.00	82,000.00	69,952.00
19	Shoes, . . . .	42,604.00	47,212.00	49,950.09	48,474.82
20	Silk, . . . .	253,762.73	260,889.00	231,914.00	229,049.61
21	Silver Plating, . . .	434,767.85	414,089.15	411,680.00	389,380.00
22	Woolen Goods, . . .	176,425.00	186,966.00	182,371.00	187,025.00
	Totals, . . . .	3,681,419.20	3,512,179.19	3,447,570.76	3,374,771.06

## 1891, 1890, 1889, AND 1888, COMPARED.—CONCLUDED.

Wages.				No. in Superintendence, including Non-Producers.				
1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	
\$ 61,034.00	\$ 67,150.00	\$ 58,320.00	\$ 54,640.50	28	30	35	21	1
4,958,571.10	4,723,819.00	4,537,019.39	4,184,657.39	580	553	566	540	2
385,293.00	387,500.00	364,168.00	371,918.00	30	30	27	27	3
813,330.00	810,552.88	784,442.11	757,514.54	53	62	78	79	4
950,518.00	825,980.00	876,600.00	833,200.00	198	120	159	170	5
2,704,800.45	2,552,052.02	2,297,474.84	2,299,752.05	291	267	219	224	6
61,000.00	53,705.00	37,500.00	32,800.00	6	7	7	7	7
159,600.00	142,600.00	141,976.00	121,831.72	11	11	10	10	8
2,419,200.75	2,433,281.11	2,619,343.44	2,364,849.92	413	414	346	361	9
2,199,975.50	2,092,382.16	1,915,454.64	1,943,619.87	180	138	154	151	10
399,198.00	365,843.00	317,192.37	289,657.94	39	35	31	30	11
500,483.75	493,931.00	536,276.36	472,343.21	50	50	45	56	12
661,513.17	610,075.00	606,599.96	600,994.37	101	87	96	95	13
2,339,736.94	2,315,336.74	1,940,209.80	1,787,418.18	295	310	210	203	14
140,000.00	196,527.00	138,847.00	133,217.00	16	21	13	13	15
155,950.00	153,450.00	173,238.39	148,764.40	9	9	17	17	16
114,075.00	109,971.18	116,498.42	103,115.01	15	16	16	16	17
937,170.10	927,170.10	774,200.70	876,133.52	70	70	69	61	18
230,677.00	306,550.00	239,327.34	241,304.38	31	42	34	34	19
1,393,055.94	1,446,293.95	1,302,926.01	1,177,001.67	125	139	139	141	20
1,944,068.18	1,823,184.58	1,807,645.00	1,597,308.00	334	315	318	302	21
2,064,345.09	2,533,686.80	2,026,100.18	1,913,862.99	103	120	138	130	22
25,593,595.97	25,371,041.52	23,611,359.95	22,305,904.66	2,978	2,846	2,727	2,688	

TABLE VIII.—PERCENTAGES OF SAME 238

	INDUSTRIES.	Per cent. net profits of capital.			
		1891.	1890.	1889.	1888.
1	Bakeries, . . . . .	20.23	16.96	14.79	15.51
2	Brass, . . . . .	10.55	9.96	4.33	9.68
3	Carriages, . . . . .	13.00	12.39	10.72	11.39
4	Clocks, . . . . .	5.23	3.23	2.09	1.73
5	Corsets, . . . . .	11.31	11.90	10.91	13.38
6	Cotton, . . . . .	9.86	5.88	6.18	7.03
7	Cutlery, . . . . .	8.21	8.44	10.41	2.78
8	Forgings, . . . . .	23.10	25.22	20.05	7.94
9	General Hardware, . . . . .	7.99	11.09	6.80	7.48
10	Hats, . . . . .	17.43	17.57	12.94	13.11
11	Iron Foundries, . . . . .	14.54	11.58	13.96	12.36
12	Iron, Malleable, . . . . .	9.96	9.39	10.16	9.39
13	Knit Goods, . . . . .	27.11	21.17	16.54	15.20
14	Machine Shops, . . . . .	8.15	12.75	10.74	10.31
15	Paper Boxes, . . . . .	5.01	16.87	21.08	25.19
16	Paper Mills, . . . . .	13.98	12.45	12.86	12.58
17	Printing and Publishing, . . . . .	9.54	9.00	13.06	3.80
18	Rubber Goods, . . . . .	6.21	3.66	2.06	.86
19	Shoes, . . . . .	13.04	12.04	13.19	7.61
20	Silk, . . . . .	7.76	13.70	12.12	12.32
21	Silver Plating, . . . . .	9.71	10.03	6.75	7.04
22	Woolen Goods, . . . . .	7.82	5.98	6.93	7.41
	General Percentage, . . . . .	9.82	9.46	7.42	8.44



## ESTABLISHMENTS, 1891, 1890, 1889, AND 1888.

Per cent. wages of cost of goods manufactured.				Per cent. superintendence of cost of goods manufactured.				
1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	
12.59	12.89	12.95	11.82	3.83	3.79	7.45	5.82	1
20.67	20.55	21.97	22.30	3.33	3.24	3.72	3.84	2
34.01	33.96	37.42	36.74	5.24	5.21	5.45	5.24	3
45.20	45.55	50.54	51.10	4.94	4.64	6.35	6.69	4
27.33	27.40	28.85	30.44	5.46	3.75	5.51	7.31	5
26.35	28.53	27.35	27.38	2.87	3.04	3.19	3.30	6
59.98	63.15	60.33	57.49	6.88	7.46	10.13	11.04	7
38.36	37.12	39.17	38.34	4.68	5.07	5.42	6.64	8
38.98	40.99	38.87	37.33	6.31	7.12	5.72	5.86	9
39.46	40.89	40.45	37.29	3.27	2.86	3.32	3.08	10
35.94	36.26	39.79	39.56	4.77	11.54	5.36	5.78	11
41.41	43.15	41.44	50.59	5.46	5.65	3.76	5.24	12
30.52	30.41	28.33	28.63	5.41	4.98	4.86	5.01	13
41.83	44.20	45.88	44.57	6.36	7.01	6.41	6.62	14
35.35	39.17	38.57	38.15	2.44	4.92	4.11	4.12	15
19.50	19.45	18.85	16.33	1.49	1.39	2.76	2.73	16
44.90	44.93	44.36	43.77	8.26	8.45	8.49	9.34	17
31.54	31.68	30.42	25.32	2.90	2.87	3.21	2.22	18
29.23	31.20	30.49	29.47	5.40	4.80	6.36	5.92	19
20.31	20.44	19.45	19.89	3.75	3.68	3.46	3.87	20
26.58	26.99	27.52	26.99	5.94	6.13	6.27	6.58	21
22.27	28.87	23.77	23.48	1.90	2.13	2.14	2.29	22
27.77	29.04	28.77	28.48	3.99	4.02	4.20	4.30	

TABLE VIII.—PERCENTAGES OF SAME 238 ESTAB-

	INDUSTRIES.	Per cent. value stock and materials of value of goods manufactured.			
		1891.	1890.	1889.	1888.
1	Bakeries, . . . . .	63.93	65.15	65.97	66.91
2	Brass, . . . . .	64.73	65.96	65.14	59.63
3	Carriages, . . . . .	44.51	43.12	42.81	42.92
4	Clocks, . . . . .	40.97	42.04	37.59	37.54
5	Corsets, . . . . .	58.14	59.14	57.03	52.17
6	Cotton, . . . . .	52.60	51.37	50.24	50.15
7	Cutlery, . . . . .	25.45	21.30	19.29	20.33
8	Forgings, . . . . .	40.00	39.79	38.67	47.01
9	General Hardware, . . . . .	40.72	38.20	40.05	39.85
10	Hats, . . . . .	47.54	45.67	45.95	50.06
11	Iron Foundries, . . . . .	44.26	45.10	44.45	41.75
12	Iron, Malleable, . . . . .	39.39	38.81	39.01	35.32
13	Knit Goods, . . . . .	45.36	50.72	53.58	53.27
14	Machine Shops, . . . . .	38.02	32.36	33.33	34.25
15	Paper Boxes, . . . . .	52.57	47.64	48.25	48.63
16	Paper Mills, . . . . .	51.03	52.89	54.90	41.27
17	Printing and Publishing, . . . . .	35.40	35.36	34.27	36.33
18	Rubber Goods, . . . . .	55.67	57.73	55.80	64.73
19	Shoes, . . . . .	56.69	57.54	56.47	59.75
20	Silk, . . . . .	62.07	61.66	64.38	61.15
21	Silver Plating, . . . . .	47.56	47.05	50.12	49.96
22	Woolen Goods, . . . . .	59.58	61.61	59.88	60.79
	General Percentage, . . . . .	54.09	54.07	54.03	52.80

## LISHMENTS, 1891, 1890, 1889, AND 1888.—CONTINUED.

Per cent. value stock and materials of cost of goods manufactured.				Per cent. of cost of manufacture (less rent, interest, and taxes), of value of goods manufactured.				
1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	
71.99	71.17	71.82	73.73	24.98	23.87	23.61	21.62	1
69.26	70.32	67.13	64.15	27.20	26.36	30.41	31.09	2
47.98	48.38	47.07	46.51	43.73	43.66	46.33	46.73	3
43.91	43.44	38.73	38.52	49.59	50.95	57.71	58.16	4
61.78	63.57	60.88	55.76	34.20	32.21	34.99	39.79	5
62.38	57.47	56.27	56.93	28.98	34.66	35.88	34.99	6
27.53	23.22	22.04	21.21	64.09	67.50	64.79	71.93	7
49.99	50.27	48.11	52.09	39.62	38.97	41.34	42.22	8
44.00	42.59	42.94	43.16	49.79	49.56	51.36	50.52	9
51.29	49.05	48.63	53.24	43.47	45.62	47.22	43.11	10
49.17	49.44	50.11	46.38	43.96	44.38	42.23	46.95	11
42.53	41.64	41.77	38.01	52.18	53.31	53.28	55.91	12
56.02	60.22	60.08	60.38	33.22	31.55	33.59	32.97	13
42.27	38.41	39.97	40.07	49.71	49.89	48.71	48.80	14
54.17	52.03	53.47	54.59	42.73	42.53	40.08	38.58	15
60.40	61.36	62.70	47.02	31.99	31.84	32.00	45.94	16
42.79	42.33	43.44	39.39	45.90	46.59	43.22	54.15	17
60.85	60.96	57.75	65.43	33.27	33.56	36.96	31.20	18
60.67	61.36	60.08	61.71	34.90	34.80	35.95	35.45	19
67.28	69.52	71.91	69.29	29.29	25.86	24.05	26.10	20
53.28	53.07	54.94	54.82	40.36	40.05	39.42	38.87	21
64.42	65.60	64.40	65.74	30.29	29.82	30.50	29.20	22
59.53	59.37	58.31	57.67	34.85	35.04	36.70	36.78	

TABLE VIII.—PERCENTAGES SAME 238 ESTAB-

	INDUSTRIES.	Per cent. of rent, interest, and taxes of value of goods manufactured.			
		1891.	1890.	1889.	1888.
1	Bakeries, . . . . .	2.51	2.52	2.26	2.17
2	Brass, . . . . .	1.52	1.48	1.42	1.72
3	Carriages, . . . . .	2.31	2.34	1.79	1.69
4	Clocks, . . . . .	2.76	2.79	1.75	1.76
5	Corsets, . . . . .	1.77	1.67	1.65	1.58
6	Cotton, . . . . .	2.73	3.34	3.15	2.95
7	Cutlery, . . . . .	2.91	2.94	3.45	3.61
8	Forgings, . . . . .	.49	.43	.36	.75
9	General Hardware, . . . . .	2.05	1.93	1.84	1.99
10	Hats, . . . . .	1.69	1.80	1.32	.86
11	Iron Foundries, . . . . .	1.71	1.73	2.03	1.31
12	Iron, Malleable, . . . . .	1.05	1.06	1.08	1.68
13	Knit Goods, . . . . .	2.43	1.95	2.00	1.98
14	Machine Shops, . . . . .	2.21	1.99	2.55	2.40
15	Paper Boxes, . . . . .	1.74	1.36	1.90	1.86
16	Paper Mills, . . . . .	1.46	1.42	.65	.57
17	Printing and Publishing, . . . . .	1.45	1.57	1.39	1.73
18	Rubber Goods, . . . . .	3.25	3.41	3.86	3.00
19	Shoes, . . . . .	1.85	1.42	1.57	1.62
20	Silk, . . . . .	1.07	1.18	1.09	.99
21	Silver Plating, . . . . .	1.35	1.55	1.69	2.31
22	Woolen Goods, . . . . .	2.55	2.48	2.58	2.47
	General Percentage, . . . . .	1.93	1.95	1.93	1.96

## LISHMENTS, 1891, 1890, 1889, AND 1888.—CONCLUDED.

Per cent. of net profits of value of goods manufactured.				Per cent. of superintendence of wages.				
1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	
8.58	8.46	8.15	9.24	30.47	29.48	57.48	49.32	1
6.55	6.20	2.97	7.06	16.14	15.79	16.97	17.21	2
11.45	10.88	9.05	9.46	15.42	15.34	14.58	14.28	3
6.68	4.22	2.94	2.53	10.94	10.20	12.58	13.08	4
5.89	6.98	6.32	6.44	19.99	13.71	19.12	24.01	5
15.69	10.63	10.72	11.90	10.89	10.66	11.69	12.03	6
7.55	8.26	12.46	4.12	11.47	11.73	16.80	19.21	7
19.89	20.81	19.60	10.29	12.21	13.67	13.84	17.32	8
7.44	10.31	6.73	7.61	16.19	17.37	14.71	15.70	9
7.30	6.91	5.50	5.96	8.30	7.00	8.21	8.27	10
10.07	8.79	11.29	9.98	13.27	11.54	13.48	14.62	11
7.38	6.82	6.62	7.08	13.18	13.11	9.09	10.37	12
18.99	15.78	10.82	11.76	17.70	16.37	17.17	17.52	13
10.06	15.76	14.59	14.54	15.20	15.85	13.97	14.85	14
2.96	8.47	9.77	10.90	6.92	12.56	10.66	10.81	15
15.52	13.94	12.43	12.21	7.67	7.16	14.66	16.74	16
17.25	16.48	21.11	7.78	18.40	18.82	19.47	21.33	17
7.81	5.30	3.36	1.08	9.17	9.06	10.59	7.97	18
6.56	6.24	6.00	3.19	18.46	15.40	20.87	20.09	19
7.57	11.30	10.47	11.76	19.65	18.03	17.77	19.46	20
10.73	11.35	8.76	8.86	22.36	22.71	22.77	24.37	21
7.58	6.09	7.02	7.53	8.54	7.37	9.00	9.77	22
9.13	8.94	7.34	8.45	14.38	13.84	14.60	15.12	



TABLE IX.—ABSTRACT OF SAME 85 ESTABLISH-

	INDUSTRIES.	Number of Establishments.					Number of Employees.				
		1891.	1890.	1889.	1888.	1887.	1891.	1890.	1889.	1888.	1887.
1	Bakeries, .	4	4	4	4	4	110	120	106	102	103
2	Brass, . .	12	12	12	12	12	6,785	6,633	6,433	6,114	6,240
3	Clocks, . .	3	3	3	3	3	1,455	1,451	1,475	1,472	1,452
4	Corsets, . .	2	2	2	2	2	521	518	688	685	418
5	Cotton, . .	6	6	6	6	6	2,328	2,327	2,168	2,179	2,280
6	Cotton Duck, .	3	3	3	3	3	767	767	752	762	705
7	Cutlery, . .	2	2	2	2	2	130	110	80	88	110
8	Forgings, . .	2	2	2	2	2	225	225	215	185	166
9	Gen'l Hardware,	5	5	5	5	5	2,241	2,275	2,679	1,850	1,576
10	Hats, . . .	4	4	4	4	4	647	650	646	643	633
11	Iron Foundries,	3	3	3	3	3	326	322	304	276	337
12	Iron, Malleable,	3	3	3	3	3	1,055	1,045	1,048	939	787
13	Knit Goods, .	3	3	3	3	3	500	502	440	423	429
14	Machine Shops,	5	5	5	5	5	2,177	2,172	1,966	1,820	2,086
15	Paper Mills, .	3	3	3	3	3	125	120	160	120	116
16	Print. and Pub.,	3	3	3	3	3	235	226	231	223	277
17	Rubber Goods,	2	2	2	2	2	2,315	2,315	1,894	1,965	1,207
18	Shoes, . . .	2	2	2	2	2	380	366	356	362	360
19	Silk, . . . .	4	4	4	4	4	3,115	3,321	2,839	2,713	2,668
20	Silver Plating,	6	6	6	6	6	2,545	2,647	2,635	2,480	2,146
21	Woolen Goods,	8	8	8	8	8	3,222	3,267	2,097	1,693	1,967
	Totals, . . .	85	85	85	85	85	31,204	31,379	29,291	27,094	26,063

## MENTS, 1891, 1890, 1889, 1888 AND 1887 COMPARED.

Capital Employed.					
1891.	1890.	1889.	1888.	1887.	
\$ 274,000.00	\$ 284,000.00	\$ 270,000.00	\$ 303,534.87	\$ 227,318.85	1
9,640,000.00	9,399,030.03	10,564,743.88	10,436,000.00	10,556,000.00	2
2,445,000.00	2,422,711.43	2,252,651.87	2,228,838.91	1,725,658.94	3
280,000.00	276,000.00	305,000.00	290,000.00	280,000.00	4
5,084,000.00	5,025,000.00	4,892,003.00	4,918,000.00	4,884,506.35	5
1,090,000.00	1,090,000.00	1,088,000.00	1,088,000.00	1,131,000.00	6
101,000.00	90,000.00	85,000.00	88,000.00	85,000.00	7
450,000.00	400,000.00	441,000.00	459,183.77	476,795.79	8
3,330,464.50	3,223,461.00	3,813,957.25	2,250,096.20	2,275,000.00	9
363,645.00	347,000.00	430,000.00	447,000.00	401,000.00	10
472,961.40	460,275.00	459,846.20	409,540.00	334,222.15	11
935,806.44	871,566.74	823,292.56	742,686.00	615,650.00	12
497,000.00	497,000.00	446,659.00	544,206.00	544,320.84	13
4,909,779.76	4,906,778.76	4,432,180.12	4,398,840.12	4,656,205.61	14
350,000.00	325,000.00	399,829.00	307,043.00	328,762.00	15
555,000.00	536,252.17	538,031.61	522,767.34	449,842.82	16
4,300,000.00	4,300,000.00	4,144,146.54	4,250,000.00	3,200,000.00	17
300,000.00	290,000.00	312,300.00	279,300.00	287,000.00	18
6,357,437.00	5,656,793.00	5,541,601.00	5,598,985.00	5,131,000.00	19
7,061,649.14	6,983,112.00	7,008,594.23	6,677,128.37	5,170,504.81	20
4,951,000.00	5,050,857.79	3,404,857.28	2,873,000.00	2,904,404.00	21
53,718,737.24	52,434,837.92	51,653,693.54	49,112,149.58	45,664,192.16	

TABLE IX.—ABSTRACT OF SAME 85 ESTABLISHMENTS,

INDUSTRIES.	Value of Goods Manufactured.				
	1891.	1890.	1889.	1888.	1887.
1 Bakeries, . . . .	\$ 530,166.56	\$ 568,916.56	\$ 490,000.00	\$ 509,359.55	\$ 451,763.72
2 Brass, . . . .	17,262,342.94	17,078,896.78	15,335,289.13	13,924,459.64	12,860,995.29
3 Clocks, . . . .	1,928,000.00	1,857,940.80	1,602,017.50	1,519,768.22	1,545,782.71
4 Corsets, . . . .	674,800.00	668,800.00	753,600.00	750,000.00	575,000.00
5 Cotton, . . . .	2,875,461.00	2,851,270.73	2,651,896.10	2,633,886.82	2,654,557.45
6 Cotton Duck, . .	823,000.00	822,521.00	871,539.42	863,838.44	706,552.82
7 Cutlery, . . . .	110,000.00	92,000.00	71,000.00	59,500.00	76,000.00
8 Forgings, . . . .	520,000.00	485,000.00	450,900.00	354,213.75	349,875.78
9 General Hardware, .	2,780,784.24	2,870,679.82	3,316,539.46	2,262,907.73	2,112,434.63
10 Hats, . . . .	954,352.00	990,278.00	994,298.11	1,086,075.61	1,038,164.00
11 Iron Foundries, . .	554,032.00	534,032.67	503,746.10	492,271.49	376,000.00
12 Iron, Malleable, . .	1,246,633.69	1,173,364.98	1,334,855.40	1,012,619.96	895,743.38
13 Knit Goods, . . . .	485,320.00	477,000.00	414,701.00	470,314.00	502,714.66
14 Machine Shops, . .	3,193,049.41	3,220,721.41	2,623,582.40	2,383,652.69	2,267,537.38
15 Paper Mills, . . . .	305,000.00	275,000.00	379,499.67	287,565.18	296,401.89
16 Printing and Publishing	307,000.00	293,004.61	332,923.27	255,432.75	286,699.27
17 Rubber Goods, . . .	2,817,753.19	2,817,753.19	2,437,761.15	3,357,457.58	2,919,500.71
18 Shoes, . . . .	678,800.00	655,660.00	653,621.27	666,975.04	669,907.37
19 Silk, . . . .	6,171,693.00	6,393,983.27	5,864,377.27	5,175,517.27	4,319,590.78
20 Silver Plating, . . .	5,621,035.10	5,319,656.91	5,238,185.14	4,486,973.00	4,843,099.75
21 Woolen Goods, . . .	4,623,180.77	4,483,178.76	3,459,656.47	2,811,591.52	3,299,871.21
Totals, . . . .	54,462,403.90	53,929,659.49	49,780,038.86	45,764,380.24	43,048,192.80

## 1891, 1890, 1889, 1888 AND 1887 COMPARED.—CONTINUED.

Value of Stock and Materials.					
1891.	1890.	1889.	1888.	1887.	
\$ 338,930.00	\$ 370,625.00	\$ 323,260.00	\$ 340,853.74	\$ 299,590.58	1
11,840,823.52	11,876,981.56	9,932,280.00	8,567,202.27	7,903,111.36	2
790,000.00	780,991.33	602,250.78	570,617.65	552,592.86	3
336,000.00	323,000.00	382,500.00	381,500.00	323,364.00	4
1,087,065.00	1,083,577.65	1,048,613.76	1,037,499.01	1,129,722.53	5
447,377.00	446,737.00	502,072.48	498,500.31	410,153.39	6
28,000.00	19,600.00	13,700.00	12,100.00	14,750.00	7
208,000.00	193,000.00	174,383.00	165,536.17	137,759.61	8
1,045,050.83	1,075,568.32	1,151,180.46	869,993.90	821,582.90	9
472,781.00	514,059.44	478,734.34	556,074.34	548,646.00	10
267,457.88	256,679.50	244,554.05	207,486.50	149,760.57	11
504,950.00	469,848.09	533,000.58	404,423.19	326,536.34	12
210,109.00	209,000.00	175,843.00	189,610.00	240,460.24	13
820,273.45	817,995.45	663,471.65	630,126.50	615,922.13	14
152,000.00	153,000.00	205,218.27	171,827.31	192,544.62	15
108,700.00	103,592.87	114,992.27	92,788.48	98,479.13	16
1,629,141.84	1,629,141.84	1,372,239.36	2,198,282.32	1,816,410.63	17
393,430.00	379,812.73	374,993.30	406,137.99	402,539.65	18
3,596,336.00	3,787,601.00	3,638,880.00	3,119,428.00	2,635,921.18	19
2,631,843.61	2,449,420.47	2,445,618.57	2,212,135.51	2,520,260.00	20
2,928,474.20	2,697,837.11	2,251,088.33	1,807,918.03	2,076,198.47	21
29,836,743.33	29,643,069.36	26,628,874.20	24,440,041.22	23,216,306.19	

TABLE IX.—ABSTRACT OF SAME 85 ESTABLISHMENTS.

INDUSTRIES.	Cost of Manufacture, Less Rent, Interest and Taxes.				
	1891.	1890.	1889.	1888.	1887.
1 Bakeries, . . . .	\$ 132,463.32	\$ 135,793.32	\$ 115,712.00	\$ 110,346.10	\$ 110,877.30
2 Brass, . . . .	4,108,874.77	4,070,793.69	4,378,316.60	4,393,046.55	4,089,406.79
3 Clocks, . . . .	956,000.00	946,549.98	924,556.75	883,932.60	875,544.84
4 Corsets, . . . .	283,000.00	277,500.00	315,500.00	313,500.00	213,416.00
5 Cotton, . . . .	1,227,788.00	1,222,375.10	1,257,196.67	1,262,241.02	1,119,714.70
6 Cotton Duck, . .	279,674.00	278,874.00	271,960.40	274,890.00	245,285.92
7 Cutlery, . . . .	70,500.00	62,100.00	46,000.00	42,800.00	54,701.50
8 Forgings, . . . .	206,000.00	189,000.00	186,422.00	149,547.88	155,441.62
9 General Hardware, .	1,523,140.50	1,436,932.28	1,928,469.64	1,279,767.71	1,233,241.99
10 Hats, . . . .	417,325.00	422,355.66	435,503.03	460,396.00	461,056.00
11 Iron Foundries, . .	212,959.10	209,680.00	182,201.08	218,494.87	201,947.88
12 Iron, Malleable, .	652,881.00	630,225.32	700,557.45	537,604.57	496,831.74
13 Knit Goods, . . .	191,380.00	188,000.00	176,208.00	197,193.00	193,270.20
14 Machine Shops, . .	1,736,776.77	1,743,522.77	1,425,520.48	1,321,163.85	1,229,485.69
15 Paper Mills, . . .	87,000.00	76,000.00	102,922.82	81,635.60	76,090.82
16 Printing and Publishing	140,900.00	136,532.33	143,884.96	138,334.86	136,138.12
17 Rubber Goods, . . .	937,170.10	937,170.00	896,679.23	1,037,348.39	843,155.88
18 Shoes, . . . .	230,470.00	222,831.68	224,280.43	223,611.20	228,332.33
19 Silk, . . . .	1,884,780.00	1,758,997.29	1,471,568.27	1,432,931.27	1,250,612.55
20 Silver Plating, . .	2,292,023.39	2,189,366.82	2,227,408.83	2,042,734.38	1,921,035.87
21 Woolen Goods, . . .	1,442,260.59	1,429,750.98	943,983.48	784,874.23	1,134,058.76
Totals, . . . .	19,013,366.54	18,564,351.22	18,354,768.12	17,186,394.08	16,272,645.29



1891, 1890, 1889, 1888 AND 1887 COMPARED.—CONTINUED.

Rent, Interest and Taxes.					
1891.	1890.	1889.	1888.	1887.	
\$ 13,311.55	\$ 14,323.05	\$ 11,092.00	\$ 11,192.00	\$ 3,060.99	1
240,925.50	236,697.76	224,791.19	243,195.04	203,867.57	2
52,120.00	51,913.41	28,090.15	26,700.45	23,011.21	3
6,896.00	12,707.00	8,625.00	8,500.00	10,550.00	4
89,471.00	89,394.92	92,311.75	67,047.36	76,633.43	5
20,181.00	20,191.00	12,901.00	12,901.00	24,838.18	6
3,200.00	2,700.00	2,450.00	2,150.00	1,380.00	7
2,050.00	2,100.00	1,660.00	2,668.44	3,694.55	8
46,869.76	39,135.15	41,321.93	26,331.87	30,152.75	9
19,948.00	18,690.00	18,715.24	18,705.24	12,950.00	10
6,735.00	6,735.00	7,220.12	2,251.55	1,614.00	11
11,823.00	11,337.91	13,321.11	16,092.20	16,416.74	12
6,950.00	6,850.00	4,551.00	4,550.00	5,025.50	13
48,083.56	56,263.56	62,171.87	50,422.96	109,621.34	14
4,100.00	3,300.00	9,024.36	2,705.75	3,561.72	15
4,455.00	4,592.04	4,649.89	4,422.25	10,872.95	16
98,860.11	98,860.11	97,390.80	101,302.09	89,663.10	17
9,890.00	9,734.90	10,158.00	10,718.99	12,172.39	18
55,442.15	58,492.42	51,004.00	32,376.00	39,058.83	19
62,641.07	68,213.00	78,444.89	112,938.52	54,934.80	20
108,055.94	107,415.37	118,877.90	82,911.24	94,585.59	21
912,008.64	919,646.60	898,772.20	840,082.95	827,665.64	

TABLE IX.—ABSTRACT OF SAME 85 ESTABLISHMENTS,

	INDUSTRIES.	Gross Profits.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . .	\$ 58,773.24	\$ 62,498.24	\$ 51,028.00	\$ 58,159.71	\$ 41,295.75
2	Brass, . . . .	1,312,644.65	1,131,121.53	1,024,692.53	964,210.82	868,477.14
3	Clocks, . . . .	182,000.00	130,399.49	75,209.97	65,217.97	114,645.31
4	Corsets, . . . .	55,800.00	63,300.00	55,600.00	55,000.00	37,950.00
5	Cotton Goods, . .	560,608.00	545,317.98	346,175.67	334,146.79	405,120.22
6	Cotton Duck, . .	95,949.00	96,910.00	97,506.54	90,448.13	51,113.51
7	Cutlery, . . . .	11,500.00	10,300.00	11,300.00	4,600.00	6,548.50
8	Forgings, . . . .	106,000.00	103,000.00	90,095.00	39,129.70	56,674.55
9	General Hardware, .	212,592.91	358,179.22	236,939.36	113,146.12	57,609.74
10	Hats, . . . .	64,246.00	53,862.90	80,060.74	69,605.27	28,462.00
11	Iron Foundries, . .	73,615.02	67,673.17	76,990.97	66,290.12	24,291.55
12	Iron, Malleable, . .	88,802.69	73,291.57	101,297.37	70,592.20	72,375.30
13	Knit Goods, . . .	83,831.00	80,000.00	62,650.00	83,511.00	68,984.22
14	Machine Shops, . .	635,999.19	659,203.19	534,584.27	432,362.34	422,129.56
15	Paper Mills, . . . .	66,000.00	46,000.00	71,358.58	34,102.27	27,766.45
16	Printing and Publishing	57,400.00	52,879.41	74,046.04	24,309.41	52,082.02
17	Rubber Goods, . . .	251,441.25	251,441.35	168,842.56	121,826.87	259,934.20
18	Shoes, . . . .	54,900.00	53,015.59	54,347.54	37,225.85	39,036.39
19	Silk, . . . .	690,577.00	847,384.98	753,929.00	623,158.00	433,057.05
20	Silver Plating, . .	697,168.10	680,869.62	565,157.74	632,103.11	401,803.88
21	Woolen Goods, . . .	252,445.98	355,590.67	264,584.66	218,799.26	89,613.98
Totals, . . . .		5,612,294.03	5,722,238.91	4,796,396.54	4,137,944.94	3,558,971.32

1891, 1890, 1889, 1888 AND 1887 COMPARED.—CONTINUED.

Net Profits.					
1891.	1890.	1889.	1888.	1887.	
\$ 45,461.69	\$ 48,175.19	\$ 39,936.00	\$ 47,067.71	\$ 38,234.76	1
1,071,719.15	894,423.77	709,901.34	720,915.78	664,609.57	2
129,880.00	78,486.08	47,119.82	38,517.52	91,634.10	3
48,904.00	50,593.00	46,975.00	46,500.00	27,400.00	4
471,137.00	455,923.06	253,863.92	267,099.43	328,486.79	5
75,768.00	76,719.00	84,605.54	77,547.13	26,275.33	6
8,300.00	7,600.00	8,850.00	2,450.00	5,168.50	7
103,950.00	100,900.00	88,435.00	36,461.26	52,980.00	8
165,723.15	319,044.07	195,617.43	86,814.25	27,456.99	9
44,298.00	35,172.90	61,345.50	50,900.03	15,512.00	10
66,880.02	60,938.17	69,770.85	64,038.57	22,677.55	11
76,979.69	61,953.66	87,976.26	54,500.00	55,958.56	12
76,881.00	73,150.00	58,099.00	78,961.00	63,958.72	13
587,915.63	602,939.63	472,412.40	381,939.38	312,508.22	14
61,900.00	42,700.00	62,334.22	31,396.52	24,204.73	15
52,945.00	48,287.37	69,396.15	19,887.16	41,209.07	16
152,581.14	152,581.24	71,451.76	20,524.78	170,271.10	17
45,010.00	43,280.69	44,189.54	26,506.86	26,864.00	18
635,134.85	788,892.56	702,925.00	590,782.00	393,998.22	19
634,527.03	612,656.62	486,712.85	519,164.59	346,869.08	20
144,390.04	248,175.30	145,706.76	135,888.02	Loss, 4,971.61	21
4,700,285.39	4,802,592.31	3,897,624.34	3,207,861.99	2,731,305.68	

TABLE IX.—ABSTRACT OF SAME 85 ESTABLISHMENTS,

INDUSTRIES.		Superintendence, Including all Non-Producers.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . .	\$ 18,600.00	\$ 19,800.00	\$ 33,524.00	\$ 26,948.00	\$ 24,100.00
2	Brass, . . . .	517,300.00	514,366.42	562,849.00	520,829.24	432,218.73
3	Clocks, . . . .	89,000.00	82,722.20	98,708.80	99,100.64	65,599.92
4	Corsets, . . . .	49,100.00	49,050.00	65,054.00	69,054.00	20,660.00
5	Cotton Goods, . . .	103,097.63	103,037.63	120,628.98	120,828.98	170,255.49
6	Cotton Duck, . . .	11,300.00	11,300.00	12,000.00	12,000.00	10,700.00
7	Cutlery, . . . .	7,000.00	6,300.00	6,300.00	6,300.00	5,080.00
8	Forgings, . . . .	19,500.00	19,500.00	19,650.00	21,100.00	16,951.48
9	General Hardware, .	152,674.56	181,774.34	171,026.54	129,175.38	126,965.06
10	Hats, . . . .	31,188.00	35,060.00	35,065.00	34,690.00	24,683.50
11	Iron Foundries, . .	19,450.00	19,450.00	18,824.60	22,096.25	17,776.25
12	Iron, Malleable, . .	62,000.00	61,158.64	47,948.00	44,386.86	34,387.04
13	Knit Goods, . . . .	20,000.00	19,900.00	17,300.00	19,925.00	12,800.00
14	Machine Shops, . . .	138,410.49	144,120.49	114,497.37	108,187.37	108,151.07
15	Paper Mills, . . . .	7,500.00	6,529.00	15,400.00	11,900.00	12,488.68
16	Printing and Publishing	21,000.00	20,700.00	22,300.00	22,000.00	12,550.00
17	Rubber Goods, . . .	73,000.00	73,000.00	72,500.00	66,452.00	66,824.99
18	Shoes, . . . .	27,780.00	26,000.00	34,781.09	33,134.82	25,076.00
19	Silk, . . . .	223,200.00	226,739.00	194,954.00	182,922.00	160,828.40
20	Silver Plating, . . .	328,367.85	324,500.00	339,700.00	315,300.00	264,034.00
21	Woolen Goods, . . .	92,763.00	92,916.00	96,771.00	84,925.00	96,696.66
Totals, . . . .		2,012,231.53	2,037,923.72	2,099,782.38	1,951,255.54	1,708,827.27

## 1891, 1890, 1889, 1888, AND 1887, COMPARED.—CONCLUDED.

Wages.					Number in Superintendence, including Non-Producers.				
1891.	1890.	1889.	1888.	1887.	1891.	1890.	1889.	1888.	1887.
\$ 61,034.00	\$ 68,150.00	\$ 58,320.00	\$ 54,640.50	\$ 55,903.96	28	30	35	21	18
2,998,512.05	3,023,718.62	3,060,644.84	2,917,310.46	2,909,598.04	392	386	421	396*	225
813,330.00	810,552.88	784,442.11	757,514.54	717,300.16	53	62	78	70*	24
196,200.00	194,500.00	227,000.00	226,000.00	149,688.85	46	46	55	55	23
739,004.62	736,391.71	624,095.37	627,006.82	672,308.85	141	141	105	105	99
157,614.00	157,554.00	194,128.37	197,691.48	174,337.67	11	11	9	9	10
61,000.00	53,705.00	37,500.00	32,800.00	49,155.17	6	7	7	7	10
159,600.00	142,600.00	141,976.00	121,831.72	100,261.62	11	11	10	10	10
1,147,550.79	1,155,144.46	1,262,991.86	870,892.53	814,067.49	242	250	199	110	102
376,144.00	376,713.66	381,476.71	385,906.71	362,209.61	35	39	38	38	22
157,112.10	157,643.00	150,591.62	151,710.69	150,434.76	15	15	14	16	17
478,163.75	472,931.00	520,886.36	412,343.21	381,185.70	43	43	42	40	26
158,160.00	158,000.00	144,858.00	155,364.00	158,191.27	14	14	13	18	8
1,338,294.74	1,335,454.74	1,220,134.14	1,079,102.21	1,196,295.52	77	80	64	55	44
58,500.00	56,000.00	75,988.39	50,924.40	50,659.50	5	5	10	7	6
114,095.00	109,971.18	116,498.42	103,115.01	107,719.45	15	26	16	16	10
857,170.10	857,170.10	715,200.70	828,133.52	603,167.47	62	62	60	58*	22
191,324.00	184,100.00	182,361.34	182,444.38	179,596.59	22	21	22	22	22
1,223,910.18	1,252,384.97	1,109,464.97	992,530.07	968,506.27	91	100	102	100*	37
1,419,698.18	1,387,368.27	1,392,645.00	1,276,808.00	1,213,163.18	254	249	254	241	242
1,154,585.38	1,156,211.73	735,372.47	608,342.70	664,143.77	49	49	55	52	53
13,869,998.89	13,846,265.32	13,136,576.67	12,032,412.95	11,677,894.90	1,612	1,647	1,609	1,446	1,030

\*By a misunderstanding the number of salesmen employed was omitted in 1887, and their salaries were returned as part of cost of manufacture.



TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS,  
1891, 1890, 1889, 1888, AND 1887.

	INDUSTRIES.	Per cent. of net profits of capital.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	16.59	16.97	14.79	15.51	16.82
2	Brass, . . . . .	11.11	9.51	7.57	6.09	6.29
3	Clocks, . . . . .	5.31	3.23	2.09	1.73	5.31
4	Corsets, . . . . .	17.46	18.33	15.40	16.04	9.78
5	Cotton, . . . . .	9.26	9.07	5.19	5.43	6.72
6	Cotton Duck, . . . . .	6.95	7.03	7.77	7.13	2.32
7	Cutlery, . . . . .	8.21	8.44	10.41	2.78	6.08
8	Forgings, . . . . .	23.10	25.22	20.05	7.94	11.11
9	General Hardware, . . . . .	5.02	9.89	5.13	3.86	1.21
10	Hats, . . . . .	12.18	10.13	14.26	11.39	3.87
11	Iron Foundries, . . . . .	14.14	13.24	15.17	15.64	6.78
12	Iron, Malleable, . . . . .	8.22	7.10	13.00	7.34	9.09
13	Knit Goods, . . . . .	15.46	14.71	10.66	14.51	11.75
14	Machine Shops, . . . . .	11.97	12.28	10.68	8.68	6.71
15	Paper Mills, . . . . .	17.68	13.13	15.59	10.23	7.36
16	Printing and Publishing, . . . . .	9.53	9.00	12.89	3.80	9.16
17	Rubber Goods, . . . . .	3.54	3.54	1.72	.48	5.32
18	Shoes, . . . . .	15.00	14.92	14.15	9.49	9.36
19	Silk, . . . . .	9.99	13.94	12.68	10.55	7.68
20	Silver Plating, . . . . .	8.98	8.77	6.94	7.77	6.71
21	Woolen Goods, . . . . .	2.91	4.91	4.27	4.73	Loss .17
	General Percentage, . . . . .	8.75	9.15	7.57	6.72	5.98

TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS,  
1891, 1890, 1889, 1888, AND 1887.—CONTINUED.

	INDUSTRIES.	Per cent. wages of cost of goods manufactured.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	12.59	13.09	12.96	11.82	13.52
2	Brass, . . . . .	18.52	18.68	21.06	22.09	23.86
3	Clocks, . . . . .	45.23	45.55	50.45	51.14	49.43
4	Corsets, . . . . .	31.35	31.46	32.12	32.13	27.34
5	Cotton, . . . . .	30.74	30.74	26.02	26.49	28.90
6	Cotton Duck, . . . . .	21.09	21.12	24.67	25.14	25.63
7	Cutlery, . . . . .	59.98	63.63	60.33	57.49	69.40
8	Forgings, . . . . .	38.36	37.13	39.17	38.34	33.77
9	General Hardware, . . . . .	43.90	45.27	40.47	40.02	39.04
10	Hats, . . . . .	41.33	39.44	40.89	37.28	35.42
11	Iron Foundries, . . . . .	32.25	33.32	34.70	35.43	42.58
12	Iron, Malleable, . . . . .	40.88	42.55	41.77	43.04	45.39
13	Knit Goods, . . . . .	38.87	39.12	40.62	39.70	36.05
14	Machine Shops, . . . . .	51.37	51.01	56.72	53.91	61.19
15	Paper Mills, . . . . .	24.06	24.10	23.95	19.88	18.61
16	Printing and Publishing, . . . . .	44.91	44.93	44.20	43.78	43.88
17	Rubber Goods, . . . . .	32.16	32.16	30.22	24.82	21.94
18	Shoes, . . . . .	30.02	30.06	29.92	28.49	27.93
19	Silk, . . . . .	22.11	22.34	21.50	21.65	24.67
20	Silver Plating, . . . . .	28.47	29.47	29.31	29.23	26.98
21	Woolen Goods, . . . . .	25.78	27.30	22.19	22.74	20.10
	General Percentage, . . . . .	27.87	28.18	28.63	28.33	28.96

TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS,  
1891, 1890, 1889, 1888, AND 1887.—CONTINUED.

	INDUSTRIES.	Per cent. superintendence of cost of goods manufactured.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	3.84	3.80	7.44	5.83	5.83
2	Brass, . . . . .	3.19	3.17	3.87	3.94	3.04
3	Clocks, . . . . .	4.95	4.64	6.34	6.69	4.51
4	Corsets, . . . . .	7.84	7.93	9.20	9.82	3.77
5	Cotton, . . . . .	4.28	4.31	5.03	5.11	7.32
6	Cotton Duck, . . . . .	1.51	1.51	1.51	1.53	1.57
7	Cutlery, . . . . .	6.88	7.46	10.13	11.04	7.17
8	Forgings, . . . . .	4.68	4.83	5.39	6.64	5.71
9	General Hardware, . . . . .	5.84	7.12	5.48	5.94	6.09
10	Hats, . . . . .	3.43	3.67	3.75	3.35	2.41
11	Iron Foundries, . . . . .	3.99	4.11	4.33	5.16	5.03
12	Iron, Malleable, . . . . .	5.30	5.50	4.85	4.36	4.09
13	Knit Goods, . . . . .	4.90	4.92	5.32	5.09	2.92
14	Machine Shops, . . . . .	5.31	5.50	3.84	5.40	5.53
15	Paper Mills, . . . . .	3.09	2.81	4.85	4.65	4.58
16	Printing and Publishing, . . . . .	8.27	8.45	8.46	9.34	5.11
17	Rubber Goods, . . . . .	2.74	2.73	3.06	1.99	2.43
18	Shoes, . . . . .	4.38	4.40	5.70	5.17	3.90
19	Silk, . . . . .	4.03	4.04	3.77	3.99	4.10
20	Silver Plating, . . . . .	6.59	6.89	7.15	7.22	5.87
21	Woolen Goods, . . . . .	2.07	2.19	2.92	3.17	2.93
	General Percentage, . . . . .	4.04	4.14	4.58	4.59	4.24

TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS.  
1891, 1890, 1889, 1888, AND 1887.—CONTINUED.

INDUSTRIES.		Per cent. value stock and materials of value of goods manufactured.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	63.93	65.15	65.97	66.92	66.3
2	Brass, . . . . .	68.60	69.54	64.77	61.53	61.4
3	Clocks, . . . . .	40.97	42.03	37.59	37.55	35.7
4	Corsets, . . . . .	49.79	49.04	50.75	50.87	56.3
5	Cotton, . . . . .	37.81	38.00	39.54	39.39	42.5
6	Cotton Duck, . . . . .	54.36	54.31	57.61	57.71	58 1
7	Cutlery, . . . . .	25.45	21.30	19.29	20.33	19.4
8	Forgings, . . . . .	40.00	39.79	38.67	46.73	39.4
9	General Hardware, . . . . .	37.58	37.47	34.71	38.45	38.9
10	Hats, . . . . .	49.54	51.91	48.14	51.20	52.9
11	Iron Foundries, . . . . .	48.25	48.06	48.55	42.15	39.9
12	Iron, Malleable, . . . . .	40.51	40.04	39.93	39.94	36.5
13	Knit Goods, . . . . .	43.29	43.82	42.40	40.32	47.8
14	Machine Shops, . . . . .	25.69	25.40	25.29	26.44	27.2
15	Paper Mills, . . . . .	49.84	55.64	54.07	59.75	64.9
16	Printing and Publishing, . . . . .	35.41	35.35	34.54	36.33	34.3
17	Rubber Goods, . . . . .	57.82	57.81	56.29	65.47	62.2
18	Shoes, . . . . .	58.03	57.93	57.37	60.89	60.1
19	Silk, . . . . .	58.27	59.24	62.05	60.27	61.0
20	Silver Plating, . . . . .	46.82	46.04	46.69	45.27	52.0
21	Woolen Goods, . . . . .	63.34	60.19	65.07	64.30	62.9
General Percentage, . . . . .		54.78	54.97	53.49	53.40	53.9

TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS,  
1891, 1890, 1889, 1888, AND 1887.—CONTINUED.

	INDUSTRIES.	Per cent. of cost of manufacture (less rent, interest, and taxes), of value of goods manufactured.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	24.99	23.86	23.61	21.66	24.5
2	Brass, . . . . .	23.81	23.84	28.55	31.55	31.8
3	Clocks, . . . . .	49.58	50.96	57.71	58.16	56.9
4	Corsets, . . . . .	41.93	41.47	41.86	41.80	37.1
5	Cotton, . . . . .	42.70	42.87	47.40	47.92	42.2
6	Cotton Duck, . . . . .	33.98	33.90	31.20	31.82	34.7
7	Cutlery, . . . . .	64.09	67.50	64.79	71.93	72.0
8	Forgings, . . . . .	39.62	38.97	41.34	42.22	44.4
9	General Hardware, . . . . .	54.77	50.05	58.14	56.55	58.4
10	Hats, . . . . .	43.73	42.65	43.80	42.39	44.4
11	Iron Foundries, . . . . .	38.44	39.26	36.17	44.39	53.7
12	Iron, Malleable, . . . . .	52.37	53.71	52.48	53.09	55.5
13	Knit Goods, . . . . .	39.43	39.41	42.49	41.93	38.5
14	Machine Shops, . . . . .	54.39	54.13	54.33	55.43	54.2
15	Paper Mills, . . . . .	28.52	27.64	27.12	28.39	25.7
16	Printing and Publishing, . . . . .	45.90	46.60	43.22	54.16	47.5
17	Rubber Goods, . . . . .	33.25	33.26	36.78	30.90	28.9
18	Shoes, . . . . .	33.95	33.98	34.31	33.53	34.1
19	Silk, . . . . .	30.54	27.51	25.09	27.69	29.0
20	Silver Plating, . . . . .	40.79	41.16	42.52	41.80	39.7
21	Woolen Goods, . . . . .	31.19	31.89	27.29	27.92	34.4
	General Percentage, . . . . .	34.91	34.42	36.87	37.55	37.8



TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS,  
1891, 1890, 1889, 1888, AND 1887.—CONTINUED.

	INDUSTRIES.	Per cent. of rent, interest, and taxes of value of goods manufactured.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	2.52	2.51	2.26	2.18	.7
2	Brass, . . . . .	1.40	1.38	1.46	1.75	1.6
3	Clocks, . . . . .	2.71	2.79	1.75	1.76	1.5
4	Corsets, . . . . .	1.02	1.89	1.14	1.13	1.8
5	Cotton, . . . . .	3.12	3.14	3.48	2.55	2.9
6	Cotton Duck, . . . . .	2.45	2.45	1.48	1.49	3.5
7	Cutlery, . . . . .	2.91	2.93	3.45	3.61	1.8
8	Forgings, . . . . .	.39	.43	.37	.75	1.1
9	General Hardware, . . . .	1.68	1.36	1.24	1.16	1.4
10	Hats, . . . . .	2.09	1.88	1.88	1.72	1.2
11	Iron Foundries, . . . . .	1.21	1.26	1.43	.46	.4
12	Iron, Malleable, . . . . .	.94	.96	1.00	1.59	1.8
13	Knit Goods, . . . . .	1.43	1.44	1.10	.97	1.0
14	Machine Shops, . . . . .	1.51	1.75	2.37	2.12	4.8
15	Paper Mills, . . . . .	1.34	1.20	2.38	.94	1.2
16	Printing and Publishing, .	1.45	1.57	1.40	1.73	3.8
17	Rubber Goods, . . . . .	3.50	3.50	3.99	3.02	3.1
18	Shoes, . . . . .	1.46	1.48	1.55	1.61	1.8
19	Silk, . . . . .	.89	.91	.87	.63	.9
20	Silver Plating, . . . . .	1.11	1.28	1.59	2.31	1.1
21	Woolen Goods, . . . . .	2.33	2.39	3.43	2.95	2.9
	General Percentage, . . .	1.68	1.71	1.81	1.84	1.9

TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS,  
1891, 1890, 1889, 1888 AND 1887.—CONTINUED.

	INDUSTRIES.	Per cent. of net profits of value of goods manufactured.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	8.56	8.46	8.15	9.24	8.5
2	Brass, . . . . .	6.19	5.23	5.22	5.18	5.2
3	Clocks, . . . . .	6.74	4.22	2.94	2.53	5.9
4	Corsets, . . . . .	7.26	7.56	6.23	6.20	4.8
5	Cotton, . . . . .	16.37	15.99	9.57	10.14	12.4
6	Cotton Duck, . . . . .	9.21	9.33	9.71	8.98	3.7
7	Cutlery, . . . . .	7.55	8.26	12.46	4.12	6.8
8	Forgings, . . . . .	19.99	20.50	19.61	10.29	15.1
9	General Hardware, . . . .	5.97	11.11	5.90	3.84	1.3
10	Hats, . . . . .	4.64	3.55	6.17	4.68	1.5
11	Iron Foundries, . . . . .	12.10	11.41	13.85	13.01	6.0
12	Iron, Malleable, . . . . .	6.18	5.28	6.59	5.38	6.2
13	Knit Goods, . . . . .	15.85	15.33	14.51	16.79	12.7
14	Machine Shops, . . . . .	18.41	18.72	18.01	16.02	13.8
15	Paper Mills, . . . . .	20.30	15.52	16.42	10.92	8.2
16	Printing and Publishing, . .	17.24	16.48	20.84	7.79	14.4
17	Rubber Goods, . . . . .	5.43	5.42	2.93	.61	5.8
18	Shoes, . . . . .	6.56	6.60	6.76	3.97	4.0
19	Silk, . . . . .	10.30	12.34	11.99	11.42	9.1
20	Silver Plating, . . . . .	11.28	11.52	9.29	10.62	7.2
21	Woolen Goods, . . . . .	3.14	5.53	4.21	4.83	Loss .2
	General Percentage, . . .	8.63	8.90	7.83	7.21	6.4

TABLE X.—PERCENTAGES OF SAME 85 ESTABLISHMENTS,  
1891, 1890, 1889, 1888, AND 1887.—CONCLUDED.

	INDUSTRIES.	Per cent. of cost of superintendence of wages.				
		1891.	1890.	1889.	1888.	1887.
1	Bakeries, . . . . .	30.47	29.09	57.48	49.32	43.11
2	Brass, . . . . .	17.25	17.01	18.39	17.85	14.85
3	Clocks, . . . . .	10.94	10.20	12.58	13.08	9.14
4	Corsets, . . . . .	25.02	25.21	28.65	30.56	13.81
5	Cotton, . . . . .	13.95	13.99	18.33	19.27	25.32
6	Cotton Duck, . . . . .	7.06	7.17	6.18	6.07	6.14
7	Cutlery, . . . . .	11.47	11.73	16.80	19.21	10.34
8	Forgings, . . . . .	12.21	13.67	13.84	17.32	16.90
9	General Hardware, . . . . .	13.30	15.73	13.54	14.83	15.59
10	Hats, . . . . .	8.29	9.28	9.19	8.99	6.81
11	Iron Foundries, . . . . .	12.37	12.40	12.50	14.56	11.81
12	Iron, Malleable, . . . . .	12.96	12.93	11.94	10.76	9.02
13	Knit Goods, . . . . .	12.64	12.59	9.38	12.82	8.09
14	Machine Shops, . . . . .	10.34	10.79	9.20	10.03	9.04
15	Paper Mills, . . . . .	12.82	11.65	20.26	23.37	24.65
16	Printing and Publishing, . . . . .	18.40	18.81	19.14	21.33	11.65
17	Rubber Goods, . . . . .	8.05	8.51	10.13	8.02	11.08
18	Shoes, . . . . .	14.51	14.12	19.07	18.16	13.96
19	Silk, . . . . .	18.23	18.14	17.57	18.43	16.60
20	Silver Plating, . . . . .	23.12	23.38	24.39	24.69	21.76
21	Woolen Goods, . . . . .	8.03	8.03	13.15	13.96	14.56
	General Percentage, . . . . .	14.50	14.71	15.98	16.22	14.63

TABLE XI.—PRODUCT PER EMPLOYEE.

## BAKERIES.—SAME 4 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, Interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 4,386.05	\$ 2,907.95	\$ 533.78	\$ 30.70	\$ 542.75	\$ 370.87
1888.	4,993.72	3,341.80	545.81	108.86	535.69	461.56
1889.	4,622.64	3,049.56	541.45	104.47	550.19	376.97
1890.	4,740.97	3,088.74	563.70	119.00	567.92	401.61
1891.	4,819.69	3,081.23	649.21	121.46	554.85	412.94
Average,	4,712.61	3,093.86	566.79	96.89	550.28	404.79

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .66 $\frac{1}{4}$	\$ .12	\$ .00 $\frac{3}{4}$	\$ .12 $\frac{1}{2}$	\$ .08 $\frac{1}{2}$
1888.	1.00	.67	.11	.02	.10 $\frac{3}{4}$	.09 $\frac{1}{4}$
1889.	1.00	.66	.11 $\frac{3}{4}$	.02 $\frac{1}{4}$	.12	.08
1890.	1.00	.65	.12	.02 $\frac{1}{2}$	.12	.08 $\frac{1}{2}$
1891.	1.00	.64	.13 $\frac{1}{2}$	.02 $\frac{1}{2}$	.11 $\frac{1}{2}$	.08 $\frac{1}{2}$
Average,	1.00	.65 $\frac{3}{4}$	.12	.02	.11 $\frac{3}{4}$	.08 $\frac{1}{2}$

## BRASS.—SAME 12 ESTABLISHMENTS.

1887.	\$ 2,061.06	\$ 1,265.48	\$ 188.38	\$ 32.98	\$ 466.28	\$ 107.94
1888.	2,277.47	1,401.32	241.36	39.86	477.15	117.78
1889.	2,383.85	1,544.02	204.77	35.04	475.77	124.25
1890.	2,574.84	1,791.54	157.84	35.53	455.86	134.07
1891.	2,544.19	1,745.16	163.65	35.66	441.93	157.79
Average,	2,368.28	1,549.50	191.20	35.81	463.40	128.37

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .61 $\frac{1}{2}$	\$ .09	\$ .01 $\frac{3}{4}$	\$ .22 $\frac{1}{2}$	\$ .05 $\frac{1}{4}$
1888.	1.00	.61 $\frac{1}{2}$	.10 $\frac{1}{2}$	.01 $\frac{3}{4}$	.21	.05 $\frac{1}{4}$
1889.	1.00	.64 $\frac{3}{4}$	.08 $\frac{1}{2}$	.01 $\frac{1}{2}$	.20	.05 $\frac{1}{4}$
1890.	1.00	.69 $\frac{1}{2}$	.06	.01 $\frac{1}{2}$	.17 $\frac{3}{4}$	.05 $\frac{1}{4}$
1891.	1.00	.68 $\frac{1}{2}$	.06 $\frac{1}{2}$	.01 $\frac{1}{2}$	.17 $\frac{1}{4}$	.06 $\frac{1}{4}$
Average,	1.00	.65 $\frac{3}{4}$	.08	.01 $\frac{1}{2}$	.19 $\frac{1}{4}$	.05 $\frac{1}{2}$

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## BAKERIES.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 4,386.05	\$ 2,907.95	\$ 533.78	\$ 30.70	\$ 542.75	\$ 370.87
1888.	4,993.72	3,341.80	545.81	108.86	535.69	461.56
1889.	4,627.27	3,034.10	548.10	105.04	553.82	386.21
1890.	4,746.10	3,072.62	575.75	119.13	562.90	415.70
1891.	4,823.96	3,064.61	651.35	120.93	559.22	427.85
Average,	4,715.42	3,084.22	570.96	96.93	550.87	412.44

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .66 $\frac{1}{4}$	\$ .12	\$ .00 $\frac{3}{4}$	\$ .12 $\frac{1}{2}$	\$ .08 $\frac{1}{2}$
1888.	1.00	.67	.11	.02	.10 $\frac{3}{4}$	.09 $\frac{1}{4}$
1889.	1.00	.65 $\frac{1}{2}$	.11 $\frac{3}{4}$	.02 $\frac{1}{4}$	.12	.08 $\frac{1}{2}$
1890.	1.00	.64 $\frac{3}{4}$	.12 $\frac{1}{4}$	.02 $\frac{1}{2}$	.11 $\frac{3}{4}$	.08 $\frac{3}{4}$
1891.	1.00	.63 $\frac{1}{2}$	.13 $\frac{1}{2}$	.02 $\frac{1}{2}$	.11 $\frac{1}{2}$	.09
Average,	1.00	.65 $\frac{1}{2}$	.12	.02	.11 $\frac{3}{4}$	.08 $\frac{3}{4}$

## BRASS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 2,061.06	\$ 1,265.48	\$ 188.38	\$ 32.98	\$ 466.28	\$ 107.94
1888.	2,193.71	1,308.11	238.35	37.73	454.66	154.86
1889.	2,172.11	1,305.87	213.30	29.97	470.35	152.62
1890.	2,273.04	1,442.92	190.59	39.32	466.92	133.29
1891.	2,256.46	1,422.02	196.22	31.81	459.10	147.31
Average,	2,191.27	1,348.88	205.37	34.36	463.46	139.20

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .61 $\frac{1}{2}$	\$ .09	\$ .01 $\frac{3}{4}$	\$ .22 $\frac{1}{2}$	\$ .05 $\frac{1}{4}$
1888.	1.00	.59 $\frac{3}{4}$	.10 $\frac{3}{4}$	.01 $\frac{3}{4}$	.20 $\frac{3}{4}$	.07
1889.	1.00	.60	.09 $\frac{3}{4}$	.01 $\frac{1}{2}$	.21 $\frac{3}{4}$	.07
1890.	1.00	.63 $\frac{1}{2}$	.08 $\frac{1}{2}$	.01 $\frac{3}{4}$	.20 $\frac{1}{2}$	.05 $\frac{3}{4}$
1891.	1.00	.63	.08 $\frac{3}{4}$	.01 $\frac{1}{2}$	.20 $\frac{1}{4}$	.06 $\frac{1}{2}$
Average,	1.00	.61 $\frac{1}{2}$	.09 $\frac{1}{4}$	.01 $\frac{1}{2}$	.21	.06 $\frac{3}{4}$



TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## CLOCKS.—SAME 3 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,064.59	\$ 380.06	\$ 108.98	\$ 15.97	\$ 494.01	\$ 65.57
1888.	1,032.45	387.68	85.88	18.17	514.62	26.10
1889.	1,086.11	408.27	94.99	19.01	531.83	32.01
1890.	1,280.46	538.18	93.72	35.72	558.62	54.22
1891.	1,325.08	542.93	98.66	35.82	558.92	88.75
Average,	1,157.74	451.42	96.45	24.94	531.60	53.33

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .35 $\frac{1}{4}$	\$ .10 $\frac{1}{4}$	\$ .01 $\frac{1}{2}$	\$ .46 $\frac{1}{2}$	\$ .06
1888.	1.00	.37 $\frac{1}{2}$	.08	.02	.50	.02 $\frac{1}{2}$
1889.	1.00	.37 $\frac{1}{2}$	.08 $\frac{3}{4}$	.01 $\frac{3}{4}$	.49	.03
1890.	1.00	.42	.07 $\frac{1}{4}$	.02 $\frac{3}{4}$	.43 $\frac{3}{4}$	.04 $\frac{1}{4}$
1891.	1.00	.41	.07 $\frac{1}{2}$	.02 $\frac{3}{4}$	.42	.06 $\frac{3}{4}$
Average,	1.00	.39	.08	.02	.46 $\frac{1}{4}$	.04 $\frac{3}{4}$

## CORSETS.—SAME 2 ESTABLISHMENTS.

1887.	\$ 1,375.60	\$ 774.46	\$ 152.46	\$ 24.76	\$ 358.11	\$ 65.81
1888.	1,094.89	556.93	127.77	12.37	329.93	67.89
1889.	1,095.35	555.89	128.64	12.49	329.94	68.39
1890.	1,291.12	633.16	160.23	24.40	375.48	97.85
1891.	1,295.20	646.83	166.60	13.24	376.58	91.95
Average,	1,230.43	633.45	147.14	17.45	354.01	78.38

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .56 $\frac{1}{2}$	\$ .11	\$ .01 $\frac{3}{4}$	\$ .26	\$ .04 $\frac{3}{4}$
1888.	1.00	.50 $\frac{3}{4}$	.11 $\frac{1}{2}$	.01 $\frac{1}{4}$	.30 $\frac{1}{4}$	.06 $\frac{1}{4}$
1889.	1.00	.50 $\frac{3}{4}$	.11 $\frac{3}{4}$	.01 $\frac{1}{4}$	.30	.06 $\frac{1}{4}$
1890.	1.00	.49	.12 $\frac{1}{2}$	.02	.29	.07 $\frac{1}{2}$
1891.	1.00	.49 $\frac{3}{4}$	.12	.01	.29	.08 $\frac{1}{4}$
Average,	1.00	.51 $\frac{1}{2}$	.11 $\frac{3}{4}$	.01 $\frac{1}{2}$	.28 $\frac{3}{4}$	.06 $\frac{1}{2}$

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## CLOCKS.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,064.59	\$ 380.06	\$ 108.98	\$ 15.97	\$ 494.01	\$ 65.57
1888.	1,032.45	387.68	85.88	18.17	514.62	26.10
1889.	1,101.18	422.96	95.41	19.71	531.45	31.65
1890.	1,307.72	554.08	127.55	27.07	534.84	64.18
1891.	1,337.73	557.18	130.43	27.55	535.11	87.46
Average,	1,168.73	460.39	109.65	21.69	522.01	54.99

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .35 $\frac{3}{4}$	\$ .10 $\frac{1}{4}$	\$ .01 $\frac{1}{2}$	\$ .46 $\frac{1}{2}$	\$ .06
1888.	1.00	.37 $\frac{1}{2}$	.08	.02	.50	.02 $\frac{1}{2}$
1889.	1.00	.38 $\frac{1}{2}$	.08 $\frac{3}{4}$	.01 $\frac{3}{4}$	.48 $\frac{1}{4}$	.02 $\frac{3}{4}$
1890.	1.00	.42 $\frac{1}{4}$	.09 $\frac{3}{4}$	.02	.41	.05
1891.	1.00	.41 $\frac{3}{4}$	.09 $\frac{3}{4}$	.02	.40	.06 $\frac{1}{2}$
Average,	1.00	.39 $\frac{1}{4}$	.09 $\frac{3}{4}$	.01 $\frac{3}{4}$	.45 $\frac{1}{4}$	.04 $\frac{1}{2}$

## CORSETS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1,375.60	\$ 774.46	\$ 152.46	\$ 24.76	\$ 358.11	\$ 65.81
1888.	1,088.26	568.18	122.11	16.98	311.95	69.04
1889.	1,485.40	837.32	107.54	24.21	405.76	110.66
1890.	1,202.10	688.08	81.21	19.23	321.51	92.07
1891.	1,177.62	656.97	90.75	29.53	328.36	72.01
Average,	1,265.81	705.00	110.81	22.94	345.14	81.92

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .56 $\frac{1}{2}$	\$ .11	\$ .01 $\frac{3}{4}$	\$ .26	\$ .04 $\frac{3}{4}$
1888.	1.00	.52 $\frac{1}{4}$	.11 $\frac{1}{4}$	.01 $\frac{1}{2}$	.28 $\frac{3}{4}$	.06 $\frac{1}{4}$
1889.	1.00	.56 $\frac{1}{4}$	.07 $\frac{1}{4}$	.01 $\frac{3}{4}$	.27 $\frac{1}{4}$	.07 $\frac{1}{2}$
1890.	1.00	.57 $\frac{1}{4}$	.06 $\frac{3}{4}$	.01 $\frac{1}{2}$	.26 $\frac{3}{4}$	.07 $\frac{3}{4}$
1891.	1.00	.55 $\frac{3}{4}$	.07 $\frac{3}{4}$	.02 $\frac{1}{2}$	.28	.06
Average,	1.00	.55 $\frac{1}{2}$	.08 $\frac{1}{2}$	.01 $\frac{3}{4}$	.27 $\frac{1}{2}$	.06 $\frac{1}{2}$

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## COTTON.—SAME 6 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of man- ufacturing, less labor and less rent, inter- est and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,164.28	\$ 494.82	\$ 196.23	\$ 33.76	\$ 294.87	\$ 144.60
1888.	1,208.76	476.13	291.52	30.82	287.75	122.54
1889.	1,223.16	483.64	292.02	42.57	287.96	116.97
1890.	1,225.30	465.61	208.84	37.98	316.45	196.42
1891.	1,230.86	466.93	209.70	38.43	317.44	198.36
Average,	1,210.48	477.43	239.66	36.71	300.90	155.78

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .42 $\frac{1}{2}$	\$ .16 $\frac{3}{4}$	\$ .03	\$ .25 $\frac{1}{4}$	\$ .12 $\frac{1}{2}$
1888.	1.00	.39 $\frac{1}{2}$	.24	.02 $\frac{1}{2}$	.23 $\frac{3}{4}$	.10 $\frac{1}{4}$
1889.	1.00	.39 $\frac{1}{2}$	.24	.03 $\frac{3}{4}$	.23 $\frac{1}{2}$	.09 $\frac{1}{2}$
1890.	1.00	.38	.17	.03	.26	.16
1891.	1.00	.38	.17	.03	.25 $\frac{3}{4}$	.16 $\frac{1}{4}$
Average,	1.00	.39 $\frac{1}{2}$	.19 $\frac{1}{2}$	.03	.25	.13

## CUTLERY.—SAME 2 ESTABLISHMENTS.

1887.	\$ 690.91	\$ 134.04	\$ 50.42	\$ 12.44	\$ 446.87	\$ 47.14
1888.	676.14	137.46	113.63	24.41	372.73	27.91
1889.	887.50	171.20	106.24	30.62	468.75	110.69
1890.	836.36	178.14	76.32	24.50	488.23	69.17
1891.	846.15	215.38	73.08	24.62	469.23	63.84
Average,	787.41	167.25	83.94	23.32	449.16	63.75

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .19 $\frac{1}{2}$	\$ .07 $\frac{1}{4}$	\$ .01 $\frac{3}{4}$	\$ .64 $\frac{3}{4}$	\$ .06 $\frac{3}{4}$
1888.	1.00	.20 $\frac{1}{4}$	.16 $\frac{3}{4}$	.03 $\frac{1}{2}$	.55 $\frac{1}{4}$	.04 $\frac{1}{4}$
1889.	1.00	.19 $\frac{1}{4}$	.12	.03 $\frac{1}{2}$	.52 $\frac{3}{4}$	.12 $\frac{1}{2}$
1890.	1.00	.21 $\frac{1}{4}$	.09	.03	.58 $\frac{1}{2}$	.08 $\frac{1}{4}$
1891.	1.00	.25 $\frac{1}{2}$	.08 $\frac{3}{4}$	.03	.55 $\frac{1}{2}$	.07 $\frac{1}{4}$
Average,	1.00	.21	.10 $\frac{3}{4}$	.03	.57 $\frac{1}{4}$	.08

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## COTTON.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of man- ufacturing, less labor and less rent, inter- est and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,164.28	\$ 494.82	\$ 196.23	\$ 33.76	\$ 294.87	\$ 144.60
1888.	1,219.35	611.50	132.52	35.97	294.12	145.24
1889.	1,283.50	684.11	140.39	39.92	297.59	121.49
1890.	1,562.96	954.66	108.55	42.98	295.32	161.45
1891.	1,273.44	753.42	90.92	34.79	295.81	98.50
Average,	1,300.71	699.70	133.72	37.49	295.54	134.26

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .42½	\$ .16¾	\$ .03	\$ .25¼	\$ .12½
1888.	1.00	.50¼	.10¾	.03	.24	.12
1889.	1.00	.53¾	.11	.03	.23¼	.09½
1890.	1.00	.61	.07	.02¾	.19	.10¼
1891.	1.00	.59¼	.07	.02¾	.23¼	.07¾
Average,	1.00	.53	.10½	.03	.23	.10½

## CUTLERY.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 690.91	\$ 134.04	\$ 50.42	\$ 12.44	\$ 446.87	\$ 47.14
1888.	676.14	137.46	113.63	24.41	372.73	27.91
1889.	1,110.34	261.71	120.78	32.53	590.62	104.70
1890.	1,198.76	333.49	25.17	31.77	602.11	206.22
1891.	1,214.11	349.43	111.18	30.43	522.83	200.24
Average,	978.06	243.23	84.24	26.32	507.03	117.24

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .19½	\$ .07¼	\$ .01¾	\$ .64¾	\$ .06¾
1888.	1.00	.20¼	.16¾	.03½	.55¼	.04¼
1889.	1.00	.23½	.10¾	.03	.53¼	.09½
1890.	1.00	.27¾	.02	.02¾	.50¼	.17¼
1891.	1.00	.28¾	.09¼	.02½	.43	.16½
Average,	1.00	.24	.09¼	.02¾	.53¼	.10¾

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## FORGINGS.—SAME 2 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 2,107.69	\$ 830.43	\$ 332.40	\$ 23.18	\$ 603.99	\$ 317.69
1888.	1,914.67	894.72	149.82	14.36	658.55	197.22
1889.	2,097.21	810.99	206.72	7.55	660.35	411.60
1890.	2,155.56	857.70	206.22	9.27	633.78	448.59
1891.	2,311.11	924.44	206.22	9.11	709.33	462.01
Average,	2,117.25	863.66	220.28	12.69	653.20	367.42

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .39½	\$ .15¾	\$ .01	\$ .28¾	\$ .15
1888.	1.00	.46¾	.07¾	.00¾	.34½	.10¼
1889.	1.00	.38¾	.09¾	.00½	.31½	.19½
1890.	1.00	.39¾	.09½	.00½	.29½	.20¾
1891.	1.00	.40	.09	.00½	.30¾	.19¾
Average,	1.00	.41	.10¼	.00¾	.31	.17

## GENERAL HARDWARE.—SAME 5 ESTABLISHMENTS.

1887.	\$ 1,340.38	\$ 521.41	\$ 265.97	\$ 18.76	\$ 516.54	\$ 17.70
1888.	1,223.19	470.32	221.01	14.19	470.75	46.92
1889.	1,237.99	429.71	248.40	15.35	471.44	73.09
1890.	1,261.84	472.68	123.86	17.16	507.75	140.39
1891.	1,240.87	466.33	166.71	20.92	512.07	74.84
Average,	1,260.85	472.09	205.19	17.27	495.71	70.59

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .39	\$ .19¾	\$ .01½	\$ .38½	\$ .01¼
1888.	1.00	.38½	.18	.01¼	.38½	.03¾
1889.	1.00	.34¾	.20	.01¼	.38	.06
1890.	1.00	.37½	.09¾	.01¼	.40¼	.11¼
1891.	1.00	.37½	.13½	.01¾	.41¼	.06
Average,	1.00	.37½	.16	.01¼	.39½	.05¾



TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## FORGINGS.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 2,107.69	\$ 830.43	\$ 332.40	\$ 23.18	\$ 603.99	\$ 317.69
1888.	1,914.67	894.72	149.82	14.36	658.55	197.22
1889.	2,063.30	842.45	264.54	9.70	579.39	367.22
1890.	2,026.51	837.76	235.64	9.52	565.82	377.77
1891.	2,073.72	861.23	229.17	32.18	597.53	353.61
Average,	2,037.18	853.32	242.31	17.79	601.06	322.70

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .39½	\$ .15¾	\$ .01	\$ .28¾	\$ .15
1888.	1.00	.46¾	.07¾	.00¾	.34½	.10¾
1889.	1.00	.41	.12¾	.00½	.28	.17¾
1890.	1.00	.41½	.11½	.00½	.28	.18¾
1891.	1.00	.41½	.11	.01½	.28¾	.17¾
Average,	1.00	.42	.11½	.01	.29½	.16

## GENERAL HARDWARE.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1,340.38	\$ 521.41	\$ 265.97	\$ 18.76	\$ 516.54	\$ 17.70
1888.	1,393.09	554.31	222.38	28.28	479.18	108.94
1889.	1,313.48	546.67	177.67	24.04	458.63	106.47
1890.	1,315.92	525.45	146.65	24.74	476.90	142.18
1891.	1,346.05	535.51	172.05	26.06	481.26	131.17
Average,	1,341.78	536.67	196.94	24.38	482.50	101.29

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .39	\$ .19¾	\$ .01½	\$ .38½	\$ .01¼
1888.	1.00	.39¾	.16	.02	.34½	.07¾
1889.	1.00	.41¾	.13½	.01¾	.35	.08
1890.	1.00	.40	.11¼	.01¾	.36¼	.10¾
1891.	1.00	.39¾	.12¾	.02	.35¾	.09¾
Average,	1.00	.40	.14¾	.01¾	.36	.07½

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## HATS.—SAME 4 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,640.07	\$ 867.60	\$ 156.15	\$ 19.68	\$ 572.21	\$ 24.43
1888.	1,689.08	864.81	115.82	29.05	600.17	79.23
1889.	1,539.16	740.95	83.62	28.94	590.52	95.13
1890.	1,523.35	790.77	70.21	28.64	579.56	54.17
1891.	1,475.04	730.73	63.65	30.83	581.35	68.48
Average,	1,573.34	798.97	97.89	27.43	584.76	64.29

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .53	\$ .09½	\$ .01¼	\$ .34¾	\$ .01½
1888.	1.00	.51¼	.06¾	.01¾	.35½	.04¾
1889.	1.00	.48¾	.05½	.01¾	.38¼	.06¼
1890.	1.00	.52	.04½	.02	.38	.03½
1891.	1.00	.49½	.04¼	.02	.39½	.04¾
Average,	1.00	.51	.06	.01¾	.37¼	.04

## IRON FOUNDRIES.—SAME 3 ESTABLISHMENTS.

1887.	\$ 1,115.73	\$ 445.18	\$ 153.16	\$ 4.46	\$ 446.39	\$ 66.54
1888.	1,783.59	751.78	241.96	8.20	549.67	231.98
1889.	1,657.06	804.34	103.98	23.70	495.37	229.65
1890.	1,658.49	797.07	161.60	20.90	489.57	189.35
1891.	1,699.18	820.42	171.31	20.65	481.93	204.87
Average,	1,582.80	723.76	166.40	15.58	492.58	184.48

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .39¾	\$ .13¾	\$ .00½	\$ .40	\$ .06
1888.	1.00	.42¼	.13½	.00½	.30¾	.13
1889.	1.00	.48½	.06¼	.01½	.30	.13¾
1890.	1.00	.48	.09¾	.01¼	.29½	.11½
1891.	1.00	.48¼	.10	.01¼	.28½	.12
Average,	1.00	.45¼	.10¾	.01	.32	.11

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## HATS.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of man- ufacturing, less labor and less rent, inter- est and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,640.07	\$ 867.60	\$ 156.15	\$ 19.68	\$ 572.21	\$ 24.43
1888.	1,522.32	762.07	122.47	13.09	533.81	90.88
1889.	1,558.80	805.28	109.35	18.39	538.28	87.50
1890.	1,591.99	795.52	130.54	23.56	544.13	98.24
1891.	1,635.24	825.81	120.99	24.99	558.65	104.80
Average,	1,589.69	811.26	127.90	19.94	549.42	81.17

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .53	\$ .09½	\$ .01¼	\$ .34¾	\$ .01½
1888.	1.00	.50	.08	.01	.35	.06
1889.	1.00	.51¾	.07	.01¼	.34½	.05½
1890.	1.00	.50	.08¼	.01½	.34¼	.06
1891.	1.00	.50½	.07½	.01½	.34¼	.06¼
Average,	1.00	.51	.08	.01¼	.34¾	.05

## IRON FOUNDRIES.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1,115.73	\$ 445.18	\$ 153.16	\$ 4.46	\$ 446.39	\$ 66.54
1888.	1,865.38	779.80	211.52	24.44	664.35	185.27
1889.	1,547.87	681.06	112.55	35.91	543.59	174.76
1890.	1,648.07	726.96	148.52	32.14	571.83	168.62
1891.	1,634.48	719.36	158.05	30.44	570.83	155.80
Average,	1,562.31	670.47	156.76	25.48	559.40	150.20

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .39¾	\$ .13¾	\$ .00½	\$ .40	\$ .06
1888.	1.00	.41¾	.11¼	.01¼	.35¾	.10
1889.	1.00	.44	.07¼	.02¼	.35¼	.11¼
1890.	1.00	.44	.09	.02	.34¾	.10¼
1891.	1.00	.44	.09¼	.01¾	.35	.10
Average,	1.00	.42¾	.10¼	.01½	.36	.09½

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## IRON, MALLEABLE.—SAME 3 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,138.30	\$ 415.28	\$ 146.95	\$ 20.49	\$ 485.62	\$ 69.96
1888.	1,078.40	430.71	133.40	17.15	439.13	58.01
1889.	1,273.72	508.60	171.44	12.70	497.03	83.95
1890.	1,122.84	449.58	150.52	10.78	452.56	59.40
1891.	1,181.64	478.62	165.61	11.21	453.24	72.96
Average,	1,158.99	456.56	153.58	14.47	465.52	68.86

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .36 $\frac{1}{2}$	\$ .13	\$ .01 $\frac{3}{4}$	\$ .42 $\frac{1}{2}$	\$ .06 $\frac{1}{4}$
1888.	1.00	.40	.12 $\frac{1}{4}$	.01 $\frac{1}{2}$	.40 $\frac{3}{4}$	.05 $\frac{1}{2}$
1889.	1.00	.40	.13 $\frac{1}{2}$	.01	.39	.06 $\frac{1}{2}$
1890.	1.00	.40	.13 $\frac{1}{2}$	.01	.40 $\frac{1}{4}$	.05 $\frac{1}{4}$
1891.	1.00	.40 $\frac{1}{2}$	.14 $\frac{1}{2}$	.01	.38 $\frac{1}{4}$	.05 $\frac{3}{4}$
Average,	1.00	.39 $\frac{1}{4}$	.13 $\frac{1}{4}$	.01 $\frac{1}{4}$	.40 $\frac{1}{4}$	.06

## KNIT GOODS.—SAME 3 ESTABLISHMENTS.

1887.	\$ 1,171.83	\$ 560.13	\$ 81.76	\$ 11.72	\$ 368.74	\$ 149.48
1888.	1,111.85	448.30	98.89	10.78	367.29	186.59
1889.	942.50	399.62	71.24	10.34	329.22	132.08
1890.	950.20	416.28	59.76	13.59	314.74	145.83
1891.	970.64	420.22	66.44	13.90	316.32	153.76
Average,	1,029.41	448.91	75.62	12.07	339.26	153.55

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .47 $\frac{3}{4}$	\$ .07	\$ .01	\$ .31 $\frac{1}{2}$	\$ .12 $\frac{3}{4}$
1888.	1.00	.40 $\frac{1}{4}$	.09	.01	.33	.16 $\frac{3}{4}$
1889.	1.00	.42 $\frac{1}{2}$	.07 $\frac{1}{2}$	.01	.35	.14
1890.	1.00	.43 $\frac{3}{4}$	.06 $\frac{1}{4}$	.01 $\frac{1}{2}$	.33 $\frac{1}{4}$	.15 $\frac{1}{4}$
1891.	1.00	.43 $\frac{1}{4}$	.06 $\frac{3}{4}$	.01 $\frac{1}{2}$	.32 $\frac{1}{2}$	.16
Average,	1.00	.43 $\frac{1}{2}$	.07 $\frac{1}{2}$	.01	.33	.15

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

IRON, MALLEABLE.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,138.30	\$ 415.28	\$ 146.95	\$ 20.49	\$ 485.62	\$ 69.96
1888.	1,099.73	422.86	92.82	19.25	502.74	62.06
1889.	1,323.15	504.65	178.37	15.35	519.67	105.11
1890.	1,185.45	452.60	158.07	13.28	484.04	77.46
1891.	1,241.61	478.92	172.95	13.72	485.42	90.60
Average,	1,197.65	454.86	149.83	16.42	495.50	81.04

IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .36½	\$ .13	\$ .01¾	\$ .42½	\$ .06¼
1888.	1.00	.38½	.08½	.01¾	.45¾	.05½
1889.	1 00	.38	.13½	.01¼	.39¼	.08
1890.	1.00	.38¾	.13¼	.01¼	.40¾	.06½
1891.	1.00	.38½	.13¾	.01	.39	.07¾
Average,	1.00	.38	.12¼	.01¼	.41½	.07

KNIT GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1,171.83	\$ 560.13	\$ 81.76	\$ 11.72	\$ 368.74	\$ 149.48
1888.	1,140.48	607.53	87.95	22.58	288.11	134.31
1889.	1,244.11	689.11	100.62	24.14	302.97	127.27
1890.	1,260.07	695.18	101.40	29.74	324.07	109.68
1891.	1,263.34	677.24	112.67	29.34	328.39	115.70
Average,	1,215.97	645.84	96.88	23.50	322.46	127.29

IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .47¾	\$ .07	\$ .01	\$ .31½	\$ .12¾
1888.	1.00	.53¼	.07¾	.02	.25¼	.11¾
1889.	1.00	.55½	.08	.02	.24¼	.10¼
1890.	1.00	.55¼	.08	.02¼	.25¾	.08¾
1891.	1.00	.53½	.09	.02¼	.26	.09¼
Average,	1.00	.53	.08	.02	.26½	.10½



TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## MACHINE SHOPS.—SAME 5 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,087.03	\$ 295.67	\$ 15.90	\$ 52.18	\$ 573.48	\$ 149.80
1888.	1,309.70	346.28	133.00	27.76	592.91	209.75
1889.	1,334.48	337.49	104.46	31.63	620.62	240.28
1890.	1,482.84	376.49	187.87	25.80	614.85	277.83
1891.	1,466.72	376.79	183.01	22.09	614.74	270.09
Average,	1,336.15	346.54	124.85	31.89	603.32	229.55

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .27 $\frac{1}{4}$	\$ .01 $\frac{1}{2}$	\$ .04 $\frac{3}{4}$	\$ .52 $\frac{3}{4}$	\$ .13 $\frac{3}{4}$
1888.	1.00	.26 $\frac{1}{2}$	.10 $\frac{1}{4}$	.02	.45 $\frac{1}{4}$	.16
1889.	1.00	.25 $\frac{1}{4}$	.07 $\frac{3}{4}$	.02 $\frac{1}{2}$	.46 $\frac{1}{2}$	.18
1890.	1.00	.25 $\frac{1}{2}$	.12 $\frac{1}{2}$	.01 $\frac{3}{4}$	.41 $\frac{1}{2}$	.18 $\frac{3}{4}$
1891.	1.00	.25 $\frac{1}{2}$	.12 $\frac{1}{2}$	.01 $\frac{1}{2}$	.42	.18 $\frac{1}{2}$
Average,	1.00	.26	.08 $\frac{3}{4}$	.02 $\frac{1}{2}$	.45 $\frac{3}{4}$	.17

## PAPER MILLS.—SAME 3 ESTABLISHMENTS.

1887.	\$ 2,555.19	\$ 1,658.32	\$ 219.23	\$ 30.66	\$ 436.72	\$ 210.26
1888.	2,396.38	1,431.84	255.91	22.53	424.37	261.73
1889.	2,371.87	1,282.47	168.34	56.45	474.93	389.68
1890.	2,291.67	1,274.86	166.65	27.50	466.67	365.99
1891.	2,440.00	1,216.00	228.00	32.80	468.00	495.20
Average,	2,411.02	1,372.69	207.63	33.99	454.14	344.57

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .65	\$ .08 $\frac{1}{2}$	\$ .01 $\frac{1}{4}$	\$ .17	\$ .08 $\frac{1}{4}$
1888.	1.00	.59 $\frac{1}{2}$	.10 $\frac{1}{2}$	.01	.17 $\frac{3}{4}$	.11 $\frac{1}{4}$
1889.	1.00	.54	.07	.02 $\frac{1}{2}$	.20	.16 $\frac{1}{2}$
1890.	1.00	.55 $\frac{3}{4}$	.07 $\frac{1}{4}$	.01 $\frac{1}{4}$	.20 $\frac{1}{4}$	.15 $\frac{1}{2}$
1891.	1.00	.49 $\frac{3}{4}$	.09 $\frac{1}{4}$	.01 $\frac{1}{4}$	.19 $\frac{1}{4}$	.20 $\frac{1}{2}$
Average,	1.00	.57	.08 $\frac{3}{4}$	.01 $\frac{1}{2}$	.19	.14 $\frac{1}{4}$

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## MACHINE SHOPS.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of man- ufacturing, less labor and less rent, inter- est and taxes.	Rent, interest and taxes.	Amount to Employee.	Product per Employee.
1887.	\$ 1,087.03	\$ 295.67	\$ 15.90	\$ 52.18	\$ 573.48	\$ 149.80
1888.	1,486.70	509.19	159.02	35.68	566.54	216.27
1889.	1,490.41	503.91	158.07	36.96	566.48	224.99
1890.	1,541.72	507.53	196.51	34.23	567.83	235.62
1891.	1,523.17	478.73	203.35	33.74	557.90	249.45
Average,	1,425.81	459.01	146.57	38.56	566.45	215.22

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .27 $\frac{1}{4}$	\$ .01 $\frac{1}{2}$	\$ .04 $\frac{3}{4}$	\$ .52 $\frac{3}{4}$	\$ .13 $\frac{3}{4}$
1888.	1.00	.34 $\frac{1}{4}$	.10 $\frac{3}{4}$	.02 $\frac{1}{2}$	.38	.14 $\frac{1}{2}$
1889.	1.00	.33 $\frac{3}{4}$	.10 $\frac{1}{2}$	.02 $\frac{1}{2}$	.38	.15 $\frac{1}{4}$
1890.	1.00	.33	.12 $\frac{3}{4}$	.02 $\frac{1}{4}$	.36 $\frac{3}{4}$	.15 $\frac{1}{4}$
1891.	1.00	.31 $\frac{1}{2}$	.13 $\frac{1}{4}$	.02 $\frac{1}{4}$	.36 $\frac{3}{4}$	.16 $\frac{1}{4}$
Average,	1.00	.32	.09 $\frac{3}{4}$	.02 $\frac{3}{4}$	.40 $\frac{1}{2}$	.15

## PAPER MILLS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 2,733.12	\$ 1,724.60	\$ 343.99	\$ 27.33	\$ 430.94	\$ 206.26
1888.	2,804.23	1,157.31	886.25	15 98	402.07	342.62
1889.	2,681.17	1,383.48	329.03	40.75	572.93	354.98
1890.	2,704.87	1,414.38	338.19	54.91	516.86	380.53
1891.	2,749.71	1,515.09	381.70	66.05	505.00	281.87
Average,	2,734.62	1,438.97	455.83	41.01	485.56	313.25

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .63	\$ .12 $\frac{1}{2}$	\$ .01	\$ .15 $\frac{3}{4}$	\$ .07 $\frac{3}{4}$
1888.	1.00	.41 $\frac{1}{4}$	.31 $\frac{3}{4}$	.00 $\frac{1}{2}$	.14 $\frac{1}{4}$	.12 $\frac{1}{4}$
1889.	1.00	.51 $\frac{1}{2}$	.12 $\frac{1}{4}$	.01 $\frac{1}{2}$	.21 $\frac{1}{2}$	.13 $\frac{1}{4}$
1890.	1.00	.52 $\frac{1}{4}$	.12 $\frac{1}{2}$	.02	.19 $\frac{1}{4}$	.14
1891.	1.00	.55	.13 $\frac{1}{2}$	.02 $\frac{1}{2}$	.18 $\frac{1}{4}$	.10 $\frac{3}{4}$
Average,	1.00	.52 $\frac{1}{2}$	.16 $\frac{1}{2}$	.01 $\frac{1}{2}$	.18	.11 $\frac{1}{2}$

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## PRINTING AND PUBLISHING.—SAME 3 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of man- ufacturing, less labor and less rent, inter- est and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,035.01	\$ 355.01	\$ 102.59	\$ 39.33	\$ 388.88	\$ 149.20
1888.	1,145.44	416.14	157.93	19.82	462.40	89.15
1889.	1,441.23	497.66	118.55	20.03	504.32	300.67
1890.	1,296.48	458.31	117.53	20.22	486.60	213.82
1891.	1,306.38	462.55	114.06	18.96	485.51	225.30
Average,	1,244.91	437.94	122.13	23.67	465.54	195.63

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .34 $\frac{1}{4}$	\$ .10	\$ .03 $\frac{3}{4}$	\$ .37 $\frac{1}{2}$	\$ .14 $\frac{1}{2}$
1888.	1.00	.36 $\frac{1}{4}$	.13 $\frac{3}{4}$	.01 $\frac{3}{4}$	.40 $\frac{1}{2}$	.07 $\frac{3}{4}$
1889.	1.00	.34 $\frac{1}{2}$	.08 $\frac{1}{4}$	.01 $\frac{1}{2}$	.35	.20 $\frac{3}{4}$
1890.	1.00	.35 $\frac{1}{2}$	.09	.01 $\frac{1}{2}$	.37 $\frac{1}{2}$	.16 $\frac{1}{2}$
1891.	1.00	.35 $\frac{1}{2}$	.08 $\frac{3}{4}$	.01 $\frac{1}{2}$	.37 $\frac{1}{4}$	.17
Average,	1.00	.35	.10	.02	37 $\frac{3}{4}$	.15 $\frac{1}{4}$

## RUBBER GOODS.—SAME 2 ESTABLISHMENTS.

1887.	\$ 2,418.81	\$ 1,504.50	\$ 198.83	\$ 74.98	\$ 499.72	\$ 140.78
1888.	1,708.63	1,118.64	106.46	51.60	421.44	10.49
1889.	1,287.10	724.51	95.81	51.35	377.61	37.82
1890.	1,217.17	703.65	34.55	42.60	370.27	66.10
1891.	1,217.17	703.73	34.55	42.70	372.27	63.92
Average,	1,569.78	811.01	94.04	52.65	408.26	63.82

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .62 $\frac{1}{4}$	.08 $\frac{1}{4}$	\$ .03	\$ .20 $\frac{3}{4}$	\$ .05 $\frac{3}{4}$
1888.	1.00	.65 $\frac{1}{2}$	.06 $\frac{1}{4}$	.03	.24 $\frac{3}{4}$	.00 $\frac{1}{2}$
1889.	1.00	.56 $\frac{1}{4}$	.07 $\frac{1}{2}$	.04	.29 $\frac{1}{4}$	.03
1890.	1.00	.57 $\frac{3}{4}$	.02 $\frac{3}{4}$	.03 $\frac{1}{2}$	.30 $\frac{1}{2}$	.05 $\frac{1}{2}$
1891.	1.00	.57 $\frac{3}{4}$	.02 $\frac{3}{4}$	.03 $\frac{1}{2}$	.30 $\frac{1}{2}$	.05 $\frac{1}{2}$
Average,	1.00	.60	.05 $\frac{1}{2}$	.03 $\frac{1}{4}$	.27 $\frac{1}{4}$	.04

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## PRINTING AND PUBLISHING.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,035.01	\$ 355.01	\$ 102.59	\$ 39.33	\$ 388.88	\$ 149.20
1888.	1,100.06	399.66	151.70	19.03	462.40	67.27
1889.	1,314.35	529.33	137.75	41.40	485.27	120.60
1890.	1,199.74	415.95	129.10	38.51	462.52	153.66
1891.	1,246.15	429.01	135.29	29.54	465.58	186.73
Average,	1,179.06	425.79	131.29	33.56	452.93	135.49

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .34 $\frac{1}{4}$	\$ .10	\$ .03 $\frac{3}{4}$	\$ .37 $\frac{1}{2}$	\$ .14 $\frac{1}{2}$
1888.	1.00	.36 $\frac{1}{4}$	.13 $\frac{3}{4}$	.01 $\frac{3}{4}$	.40 $\frac{1}{2}$	.07 $\frac{3}{4}$
1889.	1.00	.32 $\frac{1}{2}$	.10 $\frac{1}{2}$	.03 $\frac{1}{4}$	.36 $\frac{1}{4}$	.17 $\frac{1}{2}$
1890.	1.00	.34 $\frac{3}{4}$	.10 $\frac{3}{4}$	.03 $\frac{1}{4}$	.38 $\frac{1}{2}$	.12 $\frac{3}{4}$
1891.	1.00	.34 $\frac{1}{2}$	.10 $\frac{3}{4}$	.02 $\frac{1}{4}$	.37 $\frac{1}{4}$	.15 $\frac{1}{4}$
Average,	1.00	.34 $\frac{1}{2}$	.11 $\frac{1}{4}$	.02 $\frac{3}{4}$	.38	.13 $\frac{1}{2}$

## RUBBER GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 2,418.81	\$ 1,504.50	\$ 198.83	\$ 74.98	\$ 499.72	\$ 140.78
1888.	1,703.53	1,102.71	104.26	51.11	426.76	18.69
1889.	1,556.12	959.19	110.48	38.47	390.42	57.56
1890.	1,511.23	943.01	72.84	58.33	383.23	53.82
1891.	1,558.83	950.46	75.41	59.67	383.69	89.60
Average,	1,749.70	1,091.98	112.36	56.51	416.76	72.09

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .62 $\frac{1}{4}$	\$ .08 $\frac{1}{4}$	\$ .03	\$ .20 $\frac{3}{4}$	\$ .05 $\frac{3}{4}$
1888.	1.00	.64 $\frac{3}{4}$	.06 $\frac{1}{4}$	.03	.25	.01
1889.	1.00	.61 $\frac{1}{2}$	.07 $\frac{1}{4}$	.02 $\frac{1}{4}$	.25 $\frac{1}{4}$	.03 $\frac{3}{4}$
1890.	1.00	.62 $\frac{1}{2}$	.04 $\frac{3}{4}$	.03 $\frac{3}{4}$	.25 $\frac{1}{4}$	.03 $\frac{3}{4}$
1891.	1.00	.61	.04 $\frac{3}{4}$	.03 $\frac{3}{4}$	.24 $\frac{1}{2}$	.06
Average,	1.00	.62 $\frac{1}{2}$	.06 $\frac{1}{2}$	.03	.24	.04

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## SHOES.—SAME 2 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,860.85	\$ 1,118.37	\$ 135.38	\$ 33.49	\$ 498.88	\$ 74.73
1888.	1,842.47	1,121.88	113.72	29.66	503.99	73.22
1889.	1,836.01	1,053.32	117.74	28.46	512.25	124.24
1890.	1,791.42	1,037.59	105.82	26.51	503.00	118.50
1891.	1,786.32	1,035.34	103.02	26.03	503.48	118.45
Average,	1,823.42	1,073.30	115.14	28.83	504.32	101.83

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .60 $\frac{1}{4}$	\$ .07 $\frac{1}{4}$	\$ .01 $\frac{3}{4}$	\$ .26 $\frac{3}{4}$	\$ .04
1888.	1.00	.61	.06 $\frac{1}{4}$	.01 $\frac{1}{2}$	.27 $\frac{1}{4}$	.04
1889.	1.00	.57 $\frac{1}{4}$	.06 $\frac{1}{2}$	.01 $\frac{1}{2}$	.28	.06 $\frac{3}{4}$
1890.	1.00	.58	.06	.01 $\frac{1}{2}$	.28	.06 $\frac{1}{2}$
1891.	1.00	.58	.05 $\frac{3}{4}$	.01 $\frac{1}{2}$	.27 $\frac{1}{2}$	.07 $\frac{1}{4}$
Average,	1.00	.59	.06 $\frac{1}{4}$	.01 $\frac{1}{2}$	.27 $\frac{1}{2}$	.05 $\frac{3}{4}$

## SILK.—SAME 4 ESTABLISHMENTS.

1887.	\$ 1,619.04	\$ 987.61	\$ 105.74	\$ 14.57	\$ 363.01	\$ 148.11
1888.	1,907.67	1,149.75	162.32	12.02	365.84	217.74
1889.	2,065.65	1,281.73	127.53	17.76	390.79	247.84
1890.	1,925.32	1,140.37	152.54	17.52	377.11	237.78
1891.	1,981.28	1,154.52	212.16	17.80	392.91	203.89
Average,	1,899.79	1,142.80	152.06	15.93	377.93	211.07

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .61	\$ .06 $\frac{1}{2}$	\$ .01	\$ .22 $\frac{1}{2}$	\$ .09
1888.	1.00	.60 $\frac{1}{4}$	.08 $\frac{1}{2}$	.00 $\frac{1}{2}$	.19 $\frac{1}{4}$	.11 $\frac{1}{2}$
1889.	1.00	.62	.06 $\frac{1}{4}$	.00 $\frac{3}{4}$	.19	.12
1890.	1.00	.59 $\frac{1}{4}$	.08	.01	.19 $\frac{1}{2}$	.12 $\frac{1}{4}$
1891.	1.00	.58 $\frac{1}{4}$	.10 $\frac{3}{4}$	.01	.19 $\frac{3}{4}$	.10 $\frac{1}{4}$
Average,	1.00	.60 $\frac{1}{4}$	.08	.00 $\frac{3}{4}$	.20	.11



TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## SHOES.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of man- ufacturing, less labor and less rent, inter- est and taxes.	Rent, interest, and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 1,707.11	\$ 1,000.37	\$ 123.59	\$ 34.14	\$ 497.82	\$ 51.19
1888.	1,701.76	1,016.80	117.17	27.57	485.92	54.30
1889.	1,572.48	880.90	107.40	23.59	459.87	100.72
1890.	1,537.31	874.11	105.00	25.37	439.45	93.38
1891.	1,558.61	878.53	112.92	24.31	445.29	97.56
Average,	1,615.44	930.14	113.21	26.99	465.67	79.43

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .58½	\$ .07¼	\$ .02	\$ .29¼	\$ .03
1888.	1.00	.59¾	.07	.01½	.28½	.03¼
1889.	1.00	.56	.06¾	.01½	.29¼	.06½
1890.	1.00	.57	.06¾	.01¾	.28½	.06
1891.	1.00	.56¼	.07¼	.01½	.28¼	.06¾
Average,	1.00	.57½	.07	.01¾	.28¾	.05

## SILK.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1,619.04	\$ 987.61	\$ 105.74	\$ 14.57	\$ 363.01	\$ 148.11
1888.	1,967.82	1,203.33	168.84	20.58	363.01	212.06
1889.	2,137.87	1,412.05	137.44	22.66	359.84	205.88
1890.	2,837.60	2,107.19	145.85	24.40	350.45	209.71
1891.	2,925.56	2,149.17	198.34	25.05	359.96	193.04
Average,	2,297.57	1,571.87	151.24	21.45	359.25	193.76

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .61	\$ .06½	\$ .01	\$ .22½	\$ .09
1888.	1.00	.61¼	.08½	.01	.18½	.10¾
1889.	1.00	.66	.06½	.01	.16¾	.09¾
1890.	1.00	.74¼	.05¼	.01	.12¼	.07¼
1891.	1.00	.73½	.06¾	.01	.12¼	.06½
Average,	1.00	.67	.06¾	.01	.16½	.08¾

TABLE XI.—PRODUCT PER EMPLOYEE.—CONTINUED.

## SILVER PLATING.—SAME 6 ESTABLISHMENTS.

Year.	Product per Employee.	Stock and Material.	Cost of man- ufacturing, less labor and less rent, inter- est and taxes.	Rent, interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 2,256.80	\$ 1,173.54	\$ 329.85	\$ 24.82	\$ 565.31	\$ 163.28
1888.	1,809.26	891.96	308.84	47.94	514.84	48.03
1889.	1,987.93	927.96	316.80	29.62	528.52	185.03
1890.	2,009.69	925.26	302.98	25.72	524.13	231.60
1891.	2,208.65	1,034.12	342.76	24.61	557.84	249.32
Average,	2,054.47	990.57	320.25	30.54	538.13	175.45

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .52	\$ .14½	\$ .01¼	\$ .25	\$ .07¼
1888.	1.00	.49¼	.17	.02½	.28½	.02¾
1889.	1.00	.46¾	.16	.01½	.26½	.09¼
1890.	1.00	.46	.15	.01¼	.26¼	.11½
1891.	1.00	.46¾	.15½	.01	.25¼	.11½
Average,	1.00	.48	.15¾	.01½	.26¼	.08½

## WOOLEN GOODS.—SAME 8 ESTABLISHMENTS.

1887.	\$ 1,677.62	\$ 1,055.22	\$ 238.84	\$ 48.65	\$ 337.64	<sup>Loss</sup> \$ 2.73
1888.	1,660.71	1,067.84	104.26	48.99	359.33	80.29
1889.	1,649.81	1,073.53	99.47	56.59	350.68	69.54
1890.	1,372.26	825.96	83.72	32.80	353.91	75.87
1891.	1,434.88	908.89	89.07	33.54	358.34	45.04
Average,	1,559.06	986.29	123.07	44.11	351.98	53.60

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .63	\$ .14¼	\$ .03	\$ .20	<sup>Loss</sup> \$ .00¼
1888.	1.00	.64¼	.06¼	.03	.21¾	.04¾
1889.	1.00	.65	.06	.03½	.21¼	.04¼
1890.	1.00	.60¼	.06	.02½	.25¾	.05½
1891.	1.00	.63¼	.06¼	.02¼	.25	.03¼
Average,	1.00	.63	.07¾	.02¾	.22¾	.03¾

TABLE XI.—PRODUCT PER EMPLOYÉ.—CONCLUDED.

## SILVER PLATING.—ALL ESTABLISHMENTS REPORTING.

Year.	Product per Employee.	Stock and Material.	Cost of manufacturing, less labor and less rent, interest and taxes.	Rent, Interest and taxes.	Amount to Employee.	Amount to Employer.
1887.	\$ 2,256.80	\$ 1,173.54	\$ 329.85	\$ 24.82	\$ 565.31	\$ 163.28
1888.	2,062.91	1,030.63	294.17	47.65	507.57	182.89
1889.	1,944.55	947.38	303.35	37.92	478.36	177.54
1890.	2,060.52	929.70	334.42	34.41	520.39	241.60
1891.	2,186.52	998.06	370.74	34.07	540.66	242.99
Average,	2,102.26	1,015.86	326.51	35.77	522.46	201.66

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .52	\$ .14½	\$ .01¼	\$ .25	\$ .07¼
1888.	1 00	.50	.14½	.02¼	.24½	.08¾
1889.	1.00	.48¾	.15½	.02	.24½	.09¼
1890.	1.00	.45	.16¼	.01¾	.25¼	.11¾
1891.	1.00	.45¾	.17	.01½	.24¾	.11
Average,	1.00	.48¼	.15½	.01¾	.25	.09½

## WOOLEN GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1,677.62	\$ 1,055.22	\$ 238.90	\$ 48.08	\$ 337.64	\$ <sup>Loss</sup> 2.22
1888.	1,611.62	979.70	120.55	39.81	349.95	121.61
1889.	1,743.37	1,044.45	174.34	41.49	357.46	125.63
1890.	1,792.38	1,090.48	155.40	46.06	354.97	145.47
1891.	1,866.71	1,117.88	172.91	49.21	369.29	157.42
Average,	1,738.34	1,057.55	172 42	44.93	353.86	109.58

## IN ONE DOLLAR OF PRODUCT.

1887.	\$ 1.00	\$ .63	\$ .14¼	\$ .03	\$ .19¾	\$ <sup>Loss</sup> .00¼
1888.	1.00	.60¾	.07½	.02½	.21¾	.07½
1889.	1.00	.60	.10	.02½	.20¼	.07¼
1890.	1.00	.61	.08¾	.02½	.19¾	.08
1891.	1.00	.60	.09¼	.02½	.19¾	.08½
Average,	1.00	.61	.10	.02¾	.20¼	.06

TABLE XII.—INCREASE OR DECREASE, 1887 TO

	INDUSTRIES.	Cost of Stock and Material.		Cost of manufactur- ing, less labor and less rent, interest and taxes.	
		Same 82 Establish- ments.	All Establish- ments.	Same 82 Establish- ments.	All Establish- ments.
1	Bakeries, . . . . .	\$ -.02½	\$ -.02¾	\$ +.01½	\$ +.01½
2	Brass, . . . . .	+.07	+.01½	-.02½	-.00¼
3	Clocks, . . . . .	+.05½	+.06	-.02¾	-.00½
4	Corsets, . . . . .	-.06¾	-.00¾	+.01	-.03¼
5	Cotton, . . . . .	-.04½	+.06¾	+.00¼	-.09¾
6	Cutlery, . . . . .	+.06	+.09¾	+.01½	+.02
7	Forgings, . . . . .	+.00½	+.02	-.06¾	-.04¾
8	General Hardware, . . .	-.01½	+.00¾	-.06¼	-.07
9	Hats, . . . . .	-.03½	-.02½	-.05¼	-.02
10	Iron Foundries, . . . .	+.09½	+.04¼	-.03¾	-.04½
11	Iron, Malleable, . . . .	+.04	+.02	+.01½	+.00¾
12	Knit Goods, . . . . .	-.04½	+.05¾	-.00¼	+.02
13	Machine Shops, . . . .	-.01¾	+.04¼	+.11	+.11¾
14	Paper Mills, . . . . .	-.15¼	-.08	-.00¾	+.01
15	Printing and Publishing, .	+.01¼	+.00¼	-.01¾	+.00¾
16	Rubber Goods, . . . . .	-.04½	-.01¼	-.05½	-.03½
17	Shoes, . . . . .	-.02¼	-.02¼	-.01½	=
18	Silk, . . . . .	-.02¾	+.12½	+.04¼	+.00¼
19	Silver Plating, . . . . .	-.05¼	-.07¼	+.01	+.02½
20	Woolen Goods, . . . . .	+.00¼	-.03	-.08	-.05

1891, IN ONE DOLLAR OF PRODUCT OF —

Cost of Rent, Interest and Taxes.		Amount to Employee.		Amount to Employer.		
Same 82 Establish- ments.	All Establish- ments.	Same 82 Establish- ments.	All Establish- ments.	Same 82 Establish- ments.	All Establish- ments.	
\$ +.01 $\frac{3}{4}$	\$ +.01 $\frac{3}{4}$	\$ +.01	\$ +.01	\$ =	\$ =	1
— .00 $\frac{1}{4}$	— .00 $\frac{1}{4}$	— .05 $\frac{1}{2}$	— .02 $\frac{1}{4}$	+ .01	+ .01 $\frac{1}{4}$	2
+ .01 $\frac{1}{4}$	+ .00 $\frac{1}{2}$	— .04 $\frac{1}{2}$	— .06 $\frac{1}{2}$	+ .00 $\frac{3}{4}$	+ .00 $\frac{1}{2}$	3
— .00 $\frac{3}{4}$	+ .00 $\frac{3}{4}$	+ .03	+ .02	+ .03 $\frac{1}{2}$	+ .01 $\frac{1}{4}$	4
=	— .00 $\frac{1}{4}$	+ .00 $\frac{1}{2}$	— .02	+ .03 $\frac{3}{4}$	— .04 $\frac{3}{4}$	5
+ .01 $\frac{1}{4}$	+ .00 $\frac{3}{4}$	— .09 $\frac{1}{4}$	— .21 $\frac{3}{4}$	+ .00 $\frac{1}{2}$	+ .09 $\frac{1}{2}$	6
— .00 $\frac{1}{2}$	— .00 $\frac{1}{2}$	+ .02	=	+ .04 $\frac{3}{4}$	+ .02 $\frac{1}{4}$	7
+ .00 $\frac{1}{4}$	+ .00 $\frac{1}{2}$	+ .02 $\frac{3}{4}$	— .02 $\frac{3}{4}$	+ .04 $\frac{3}{4}$	+ .08 $\frac{1}{2}$	8
+ .00 $\frac{3}{4}$	+ .00 $\frac{1}{4}$	+ .04 $\frac{3}{4}$	— .00 $\frac{1}{2}$	+ .03 $\frac{1}{4}$	+ .04 $\frac{3}{4}$	9
+ .00 $\frac{3}{4}$	+ .01 $\frac{1}{4}$	— .11 $\frac{1}{2}$	— .05	+ .06	+ .04	10
— .00 $\frac{3}{4}$	— .00 $\frac{3}{4}$	— .04 $\frac{1}{4}$	— .03 $\frac{1}{2}$	— .00 $\frac{1}{2}$	+ .01 $\frac{1}{2}$	11
+ .00 $\frac{1}{2}$	+ .01 $\frac{1}{4}$	+ .01	— .05 $\frac{1}{2}$	+ .03 $\frac{1}{4}$	— .03 $\frac{1}{2}$	12
— .03 $\frac{1}{4}$	— .02 $\frac{1}{4}$	— .10 $\frac{3}{4}$	— .16	+ .04 $\frac{3}{4}$	+ .02 $\frac{1}{2}$	13
=	+ .01 $\frac{1}{2}$	+ .02 $\frac{1}{4}$	+ .02 $\frac{1}{2}$	+ .12 $\frac{1}{4}$	+ .03	14
— .02 $\frac{1}{4}$	— .01 $\frac{1}{2}$	— .00 $\frac{1}{4}$	— .00 $\frac{1}{4}$	+ .02 $\frac{1}{2}$	+ .00 $\frac{3}{4}$	15
+ .00 $\frac{1}{2}$	+ .00 $\frac{3}{4}$	+ .09 $\frac{3}{4}$	+ .03 $\frac{3}{4}$	— .00 $\frac{1}{4}$	+ .00 $\frac{1}{4}$	16
— .00 $\frac{1}{4}$	— .00 $\frac{1}{2}$	+ .00 $\frac{3}{4}$	— .01	+ .03 $\frac{1}{4}$	+ .03 $\frac{3}{4}$	17
=	=	— .02 $\frac{3}{4}$	— .10 $\frac{1}{4}$	+ .01 $\frac{1}{4}$	— .02 $\frac{1}{2}$	18
— .00 $\frac{1}{4}$	+ .00 $\frac{1}{4}$	+ .00 $\frac{1}{4}$	+ .00 $\frac{1}{4}$	+ .04 $\frac{1}{4}$	+ .03 $\frac{3}{4}$	19
— .00 $\frac{3}{4}$	— .00 $\frac{1}{2}$	+ .05	=	+ .03	+ .08 $\frac{1}{4}$	20



TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST OF PRODUCT.

## BAKERIES.—SAME 4 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	72.45	....	13.52	....	13.29	....	.74	....
1888.	73.71	+1.26	11.82	-1.70	12.05	-1.24	2.42	+1.68
1889.	71.83	-1.88	12.96	+1.14	12.75	+ .70	2.46	+ .04
1890.	71.17	- .86	13.09	+ .13	12.99	+ .24	2.75	+ .29
1891.	69.93	-1.24	12.59	- .50	14.74	+1.75	2.74	- .01
'87-'91.	....	-2.52	....	- .93	....	+1.45	....	+2.00

## BAKERIES.—ALL ESTABLISHMENTS REPORTING.

1887.	72.45	....	13.52	....	13.29	....	.74	....
1888.	73.71	+1.26	11.82	-1.70	12.05	-1.24	2.42	+1.68
1889.	71.54	-2.17	13.06	+1.24	12.93	+ .88	2.47	+ .05
1890.	70.95	- .59	12.99	- .07	13.31	+ .38	2.75	+ .28
1891.	69.71	-1.24	12.72	- .27	14.82	+1.51	2.75	=
'87-'91.	....	-2.74	....	- .80	....	+1.53	....	+2.01

## BRASS.—SAME 12 ESTABLISHMENTS.

1887.	64.80	....	23.86	....	9.67	....	1.67	....
1888.	64.89	+ .09	22.09	-1.77	11.18	+1.51	1.84	+ .17
1889.	68.33	+3.44	21.06	-1.03	9.06	-2.12	1.55	- .29
1890.	73.39	+5.06	18.68	-2.38	6.47	-2.59	1.46	- .09
1891.	73.13	- .26	18.52	- .16	6.86	+ .39	1.49	+ .03
'87-'91.	....	+8.33	....	-5.34	...	-2.81	....	- .18

## BRASS.—ALL ESTABLISHMENTS REPORTING.

1887.	64.80	....	23.86	....	9.67	....	1.67	....
1888.	64.15	- .65	22.30	-1.56	11.69	+2.02	1.86	+ .19
1889.	64.66	+ .51	23.29	+ .99	10.56	-1.13	1.49	- .37
1890.	67.43	+2.77	21.82	-1.47	8.91	-1.65	1.84	+ .35
1891.	67.42	- .01	21.76	- .06	9.32	+ .41	1.50	- .34
'87-'91.	....	+2.62	....	-2.10	....	- .35	....	- .17

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST  
OF PRODUCT.—CONTINUED.

## CLOCKS.—SAME 3 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	38.08	....	49.43	....	10.90	....	1.59	....
1888.	38.52	+ .44	51.14	+1.71	8.53	-2.37	1.80	+ .21
1889.	38.73	+ .21	50.45	- .69	9.01	+ .48	1.81	+ .01
1890.	43.89	+5.16	45.55	-4.90	7.64	-1.37	2.92	+1.11
1891.	43.94	+ .05	45.23	- .32	7.93	+ .29	2.90	- .02
'87-'91.	....	+5.86	....	-4.20	....	-2.97	....	+1.31

## CLOCKS.—ALL ESTABLISHMENTS REPORTING.

1887.	38.08	....	49.43	....	10.90	....	1.59	....
1888.	38.52	+ .44	51.14	+1.71	8.54	-2.36	1.80	+ .21
1889.	39.54	+1.02	49.68	-1.46	8.93	+ .39	1.85	+ .05
1890.	44.55	+5.01	43.01	-6.67	10.26	+1.33	2.18	+ .33
1891.	44.56	+ .01	42.80	- .21	10.43	+ .17	2.21	+ .03
'87-'91	....	+6.48	....	-6.63	....	- .47	....	+ .62

## CORSETS.—SAME 2 ESTABLISHMENTS.

1887.	59.08	....	27.34	....	11.64	....	1.94	....
1888.	54.23	-4.85	32.12	+4.78	12.44	+ .80	1.21	- .73
1889.	54.14	- .09	32.12	=	12.52	+ .08	1.22	+ .01
1890.	53.06	-1.08	31.46	- .66	13.43	+ .91	2.05	+ .83
1891.	53.68	+ .62	31.35	- .11	13.87	+ .44	1.10	- .95
'87-'91.	....	-5.40	....	+4.01	....	+2.23	....	- .84

## CORSETS.—ALL ESTABLISHMENTS REPORTING.

1887.	59.08	....	27.34	....	11.64	....	1.94	....
1888.	55.74	-3.34	30.60	+3.26	12.00	+ .36	1.66	- .28
1889.	60.89	+5.15	29.51	-1.09	7.84	-4.16	1.76	+ .10
1890.	61.98	+1.09	28.96	- .55	7.33	- .51	1.73	- .03
1891.	59.42	-2.56	29.70	+ .74	8.21	+ .88	2.67	+ .94
'87-'91	....	+ .34	....	+2.36	....	-3.43	....	+ .73

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST  
OF PRODUCT.—CONTINUED.

## COTTON.—SAME 6 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	48.57	....	28.91	....	19.23	....	3.29	....
1888.	43.84	-4.73	26.49	-2.42	26.84	+7.61	2.83	-.46
1889.	43.73	-.11	26.02	-.47	26.40	-.44	3.85	+1.02
1890.	45.24	+1.51	30.74	+4.72	20.29	-6.11	3.73	-.12
1891.	45.21	-.03	30.74	=	20.33	+ .04	3.72	-.01
'87-'91.	....	-3.36	....	+1.83	....	+1.10	....	+ .43

## COTTON.—ALL ESTABLISHMENTS REPORTING.

1887.	48.57	....	28.90	....	19.24	....	3.29	....
1888.	56.93	+ 8.36	27.38	-1.52	12.34	- 6.90	3.35	+ .06
1889.	58.87	+ 1.94	25.61	-1.77	12.09	-.25	3.43	+ .08
1890.	68.11	+9.24	21.07	-4.54	7.75	- 4.34	3.07	-.36
1891.	64.12	- 3.99	25.18	+4.11	7.74	-.01	2.96	-.11
'87-'91.	....	+15.55	....	-3.72	....	-11.50	....	-.33

## CUTLERY.—SAME 2 ESTABLISHMENTS.

1887.	20.82	....	69.40	....	7.83	....	1.95	....
1888.	21.21	+ .39	57.49	-11.91	17.53	+9.70	3.77	+1.82
1889.	22.04	+ .83	60.33	+ 2.84	13.68	-3.85	3.94	+ .17
1890.	23.22	+1.18	63.63	+ 3.30	9.95	-3.73	3.20	-.74
1891.	27.54	+4.32	59.98	- 3.65	9.34	-.61	3.14	-.06
'87-'91.	....	+6.72	....	- 9.42	....	+1.51	....	+1.19

## CUTLERY.—ALL ESTABLISHMENTS REPORTING.

1887.	20.82	....	69.40	....	7.83	....	1.95	....
1888.	21.21	+ .39	57.49	-11.91	17.53	+9.70	3.77	+1.82
1889.	26.02	+ 4.81	58.72	+ 1.23	12.02	-5.51	3.24	-.53
1890.	33.59	+ 7.57	60.66	+ 1.94	2.54	-9.48	3.21	-.03
1891.	34.47	+ .88	51.57	- 9.09	10.96	+8.42	3.00	-.21
'87-'91.	....	+13.65	....	-17.83	....	+3.13	....	+1.05

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST  
OF PRODUCT.—CONTINUED.

## FORGINGS.—SAME 2 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	46.40	....	33.77	....	18.58	....	1.25	....
1888.	52.10	+5.70	38.34	+4.57	8.72	-9.86	.84	-.41
1889.	48.11	-3.99	39.17	+.83	12.26	+3.54	.46	-.38
1890.	50.25	+2.14	37.13	-2.04	12.08	-.18	.54	+.08
1891.	50.00	-.25	38.36	+1.23	11.15	-.93	.49	-.05
'87-'91.	....	+3.60	....	+4.59	....	-7.43	....	-.76

## FORGINGS.—ALL ESTABLISHMENTS REPORTING.

1887.	46.40	....	33.77	....	18.59	....	1.24	....
1888.	52.10	+5.70	38.34	+4.57	8.72	-9.87	.84	-.40
1889.	49.67	-2.43	34.16	-4.18	15.60	+6.88	.57	-.27
1890.	50.80	+1.13	34.32	+.16	14.30	-1.30	.58	+.01
1891.	50.04	-.76	34.77	+.45	13.32	-.98	1.87	+1.29
'87-'91.	....	+3.64	....	+1.00	....	-5.27	....	+.63

## GENERAL HARDWARE.—SAME 5 ESTABLISHMENTS.

1887.	39.41	....	39.04	....	20.10	....	1.45	....
1888.	39.98	+.57	40.02	+.98	18.79	-1.31	1.21	-.24
1889.	36.89	-3.09	40.47	+.45	21.32	+2.53	1.32	+.11
1890.	42.16	+5.27	45.27	+4.80	11.04	-10.28	1.53	+.21
1891.	39.96	-2.20	43.89	-1.38	14.36	+3.32	1.79	+.26
'87-'91.	....	+.55	....	+4.85	....	-5.74	....	+.34

## GENERAL HARDWARE.—ALL ESTABLISHMENTS REPORTING.

1887.	39.40	....	39.04	....	20.11	....	1.45	....
1888.	43.16	+3.76	37.31	-1.73	17.32	-2.79	2.21	+.76
1889.	45.29	+2.13	38.00	+.69	14.72	-2.60	1.99	-.22
1890.	44.77	-.52	40.63	+2.63	12.49	-2.23	2.11	+.12
1891.	44.08	-.69	39.61	-1.02	14.17	+1.68	2.14	+.03
'87-'91.	....	+4.68	....	+.57	....	-5.94	....	+.69

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST OF PRODUCT.—CONTINUED.

## HATS.—SAME 4 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	53.65	....	35.42	....	9.66	....	1.27	....
1888.	53.72	+ .07	37.28	+1.86	7.19	-2.47	1.81	+ .54
1889.	51.31	-2.41	40.89	+3.61	5.79	-1.40	2.01	+ .20
1890.	53.82	+2.51	39.44	-1.45	4.78	-1.01	1.96	- .05
1891.	51.95	-1.87	41.34	+1.90	4.52	- .26	2.19	+ .23
'87-'91.	....	-1.70	....	+5.92	....	-5.14	....	+ .92

## HATS.—ALL ESTABLISHMENTS REPORTING.

1887.	53.65	....	35.42	....	9.66	....	1.27	....
1888.	53.24	- .41	37.29	+1.87	8.55	-1.11	.92	- .35
1889.	54.73	+1.49	36.58	- .71	7.43	-1.12	1.26	+ .34
1890.	53.24	-1.49	36.43	- .15	8.74	+1.31	1.59	+ .33
1891.	53.96	+ .72	36.50	+ .07	7.91	- .83	1.63	+ .04
'87-'91.	....	+ .31	....	+1.08	....	-1.75	....	+ .36

## IRON FOUNDRIES.—SAME 3 ESTABLISHMENTS.

1887.	42.38	....	42.58	....	14.58	....	0.46	....
1888.	48.45	+6.07	35.43	-7.15	15.59	+1.01	0.53	+ .07
1889.	56.35	+7.90	34.70	- .73	7.28	-8.31	1.66	+1.13
1890.	54.26	-2.09	33.32	-1.38	11.00	+3.72	1.42	- .24
1891.	54.90	+ .64	32.25	-1.07	11.47	+ .47	1.38	- .04
'87-'91.	....	+12.52	....	-10.33	....	-3.11	....	+ .92

## IRON FOUNDRIES.—ALL ESTABLISHMENTS REPORTING.

1887.	42.38	....	42.58	....	14.58	....	0.46	....
1888.	46.38	+4.00	39.56	-3.02	12.60	-1.98	1.46	+1.00
1889.	49.59	+3.21	39.59	+ .03	8.20	-4.40	2.62	+1.16
1890.	49.13	- .46	38.65	- .94	10.04	+1.84	2.18	- .44
1891.	48.65	- .48	38.60	- .05	10.69	+ .65	2.06	- .12
'87-'91.	....	+6.27	....	-3.98	....	-3.89	....	+1.60



TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST OF PRODUCT.—CONTINUED.

## IRON, MALLEABLE.—SAME 3 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	38.89	....	45.39	....	13.77	....	1.95	....
1888.	42.21	+3.32	43.04	-2.35	13.07	-.70	1.68	-.27
1889.	42.75	+.54	41.77	-1.27	14.41	+1.34	1.07	-.61
1890.	42.28	-.47	42.55	+.78	14.15	-.26	1.02	-.05
1891.	43.17	+.89	40.88	-1.67	14.94	+.79	1.01	-.01
'87-'91.	....	+4.28	....	-4.51	....	+1.17	....	-.94

## IRON, MALLEABLE.—ALL ESTABLISHMENTS REPORTING.

1887.	38.88	....	45.39	....	13.78	....	1.95	....
1888.	40.75	+1.87	48.44	+3.05	8.95	-4.83	1.86	-.09
1889.	41.43	+.68	42.67	-5.77	14.64	+5.69	1.26	-.60
1890.	40.84	-.59	43.68	+1.01	14.27	-.37	1.21	-.05
1891.	41.64	+.80	42.20	-1.48	14.97	+.70	1.19	-.02
'87-'91.	....	+2.76	....	-3.19	....	+1.19	....	-.76

## KNIT GOODS.—SAME 3 ESTABLISHMENTS.

1887.	54.81	....	36.05	....	7.99	....	1.15	....
1888.	48.45	-6.36	39.70	+3.65	10.69	+2.70	1.16	+.01
1889.	49.31	+.86	40.62	+.92	8.79	-1.90	1.28	+.12
1890.	51.75	+2.44	39.12	-1.50	7.43	-1.36	1.70	+.42
1891.	51.44	-.31	38.72	-.40	8.14	+.71	1.70	=
'87-'91.	....	-3.37	....	+2.67	....	+.15	....	+.55

## KNIT GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	54.80	....	36.05	....	8.00	....	1.15	....
1888.	60.38	+5.58	28.63	-7.42	8.74	+.74	2.25	-1.10
1889.	61.70	+1.32	27.12	-1.51	9.01	+.27	2.17	-.08
1890.	60.43	-1.27	28.16	+1.04	8.83	-.18	2.58	+.41
1891.	59.01	-1.42	28.61	+.45	9.82	+.99	2.56	-.02
'87-'91.	....	+4.21	....	-7.44	....	+1.82	....	+1.41

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST OF PRODUCT.—CONTINUED.

## MACHINE SHOPS.—SAME 5 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	31.50	....	61.19	....	1.70	....	5.61	....
1888.	31.48	— .02	53.91	—7.28	12.09	+10.39	2.52	—3.09
1889.	30.84	— .64	56.72	+2.81	9.55	— 2.54	2.89	+ .37
1890.	31.25	+ .41	51.01	—5.71	15.59	+ 6.04	2.15	— .74
1891.	31.52	+ .27	51.35	+ .34	15.29	— .30	1.84	— .31
'87—'91.	....	+ .02	....	—9.84	....	+13.59	....	—3.77

## MACHINE SHOPS.—ALL ESTABLISHMENTS REPORTING.

1887.	31.50	....	61.19	....	1.70	....	5.61	....
1888.	40.08	+8.58	44.57	—16.62	12.53	+10.83	2.82	—2.79
1889.	39.83	— .25	44.77	+ .20	12.48	— .05	2.92	+ .10
1890.	38.85	— .98	43.47	— 1.30	15.06	+ 2.58	2.62	— .30
1891.	37.59	—1.26	43.80	+ .33	15.96	+ .90	2.65	+ .03
'87—'91.	....	+6.09	....	—17.39	....	+14.26	....	—2.96

## PAPER MILLS.—SAME 3 ESTABLISHMENTS.

1887.	70.74	....	18.61	....	9.34	....	1.31	....
1888.	67.08	—3.66	19.88	+1.27	11.99	+2.65	1.05	— .26
1889.	64.70	—2.38	23.95	+4.07	8.49	—3.50	2.86	+1.81
1890.	65.86	+1.16	24.10	+ .15	8.61	+ .12	1.43	—1.43
1891.	62.52	—3.34	24.07	— .03	11.72	+3.11	1.69	+ .26
'87—'91.	....	—8.22	....	+5.46	....	+2.38	....	+ .38

## PAPER MILLS.—ALL ESTABLISHMENTS REPORTING.

1887.	68.28	....	17.06	....	13.62	....	1.04	....
1888.	47.02	—21.26	16.33	— .73	36.00	+22.38	0.65	— .39
1889.	59.47	+12.45	24.62	+8.29	14.16	—21.84	1.75	+1.10
1890.	60.84	+ 1.37	22.23	—2.39	14.57	+ .41	2.36	+ .61
1891.	61.39	+ .55	20.46	—1.77	15.47	+ .90	2.68	+ .32
'87—'91.	....	— 6.89	....	+3.40	....	+ 1.85	....	+1.64

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST  
OF PRODUCT.—CONTINUED.

## PRINTING AND PUBLISHING.—SAME 3 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	40.11	....	43.88	....	11.58	....	4.43	....
1888.	39.39	— .72	43.78	— .10	14.95	+3.37	1.88	—2.55
1889.	43.64	+4.25	44.21	+ .43	10.39	—4.56	1.76	— .12
1890.	42.34	—1.30	44.93	+ .72	10.85	+ .46	1.88	+ .12
1891.	42.78	+ .44	44.89	— .04	10.58	— .27	1.75	— .13
'87—'91.	....	+2.67	....	+1.01	....	—1.00	....	—2.68

## PRINTING AND PUBLISHING.—ALL ESTABLISHMENTS REPORTING.

1887.	40.11	....	43.88	....	11.58	....	4.43	....
1888.	39.39	— .72	43.78	— .10	14.95	+3.37	1.88	—2.55
1889.	39.09	— .30	44.48	+ .70	12.63	—2.32	3.80	+1.92
1890.	39.75	+ .66	44.20	— .28	12.36	— .27	3.69	— .11
1891.	26.83	—12.92	54.04	+ 9.84	15.70	+3.34	3.43	— .26
'87—'91.	....	—13.28	....	+10.16	....	+4.12	....	—1.00

## RUBBER GOODS.—SAME 2 ESTABLISHMENTS.

1887.	66.07	....	21.94	....	8.73	....	3.26	....
1888.	65.88	— .19	24.82	+2.88	6.27	—2.46	3.03	— .23
1889.	57.99	—7.89	30.22	+5.40	7.67	+1.40	4.12	+1.09
1890.	61.13	+3.14	32.16	+1.94	3.00	—4.67	3.71	— .41
1891.	61.13	=	32.16	=	3.00	=	3.71	=
'87—'91.	....	—4.94	....	+10.22	....	—5.73	....	+ .45

## RUBBER GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	66.07	....	21.94	....	8.73	.. .	3.26	....
1888.	65.43	— .64	25.32	+3.38	6.22	—2.51	3.03	— .23
1889.	64.13	—1.30	26.10	+ .78	7.40	+1.18	2.37	— .66
1890.	64.78	+ .65	26.32	+ .22	4.89	—2.51	4.01	+1.64
1891.	64.71	— .07	26.10	— .22	5.13	+ .24	4.06	+ .05
'87—'91.	....	—1.36	....	+4.16	....	—3.60	....	+ .80

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST  
OF PRODUCT.—CONTINUED.

## SHOES.—SAME 2 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufac- turing, less labor and less rent, in- terest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	62.60	....	27.93	....	7.58	....	1.89	....
1888.	63.41	+ .81	28.49	+ .56	6.43	-1.15	1.67	- .22
1889.	61.53	-1.88	29.92	+1.43	6.88	+ .45	1.67	=
1890.	62.03	+ .50	30.06	+ .14	6.32	- .56	1.59	- .08
1891.	62.08	+ .05	30.19	+ .13	6.17	- .15	1.56	- .03
'87-'91.	....	- .52	....	+2.26	....	-1.41	....	- .33

## SHOES.—ALL ESTABLISHMENTS REPORTING.

1887.	60.38	....	30.09	....	7.48	....	2.05	....
1888.	61.71	+1.33	29.47	- .62	7.15	- .33	1.67	- .38
1889.	59.83	-1.88	31.25	+1.78	7.31	+ .16	1.61	- .06
1890.	60.53	+ .70	30.43	- .82	7.28	- .03	1.76	+ .15
1891.	60.13	- .40	30.48	+ .05	7.73	+ .45	1.66	- .10
'87-'91.	....	- .25	....	+ .39	....	+ .25	....	- .39

## SILK.—SAME 4 ESTABLISHMENTS.

1887.	67.15	....	24.67	....	7.19	....	.99	....
1888.	68.04	+ .89	21.65	-3.02	9.61	+2.42	.70	- .29
1889.	70.50	+2.46	21.50	- .15	7.01	-2.60	.99	+ .29
1890.	67.57	-2.93	22.34	+ .84	9.04	+2.03	1.05	+ .06
1891.	64.95	-2.62	22.11	- .23	11.94	+2.90	1.00	- .05
'87-'91.	....	-2.20	....	-2.56	....	+4.75	....	+ .01

## SILK.—ALL ESTABLISHMENTS REPORTING.

1887.	67.15	....	24.67	....	7.19	....	.99	....
1888.	69.29	+2.14	19.89	-4.78	9.69	+2.50	1.13	+ .14
1889.	73.10	+3.81	18.62	-1.27	7.10	-2.59	1.18	+ .05
1890.	80.17	+7.07	13.33	-5.29	5.57	-1.53	.93	- .25
1891.	78.65	-1.52	13.17	- .16	7.26	+1.69	.92	- .01
'87-'91.	....	+11.50	....	-11.50	....	+ .07	....	- .07

TABLE XIII.—PERCENTAGES OF ELEMENTS OF COST  
OF PRODUCT.—CONCLUDED.

## SILVER PLATING.—SAME 6 ESTABLISHMENTS.

Year.	Stock and Material.		Wages.		Cost of manufacturing, less labor and less rent, interest and taxes.		Rent, Interest and Taxes.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	56.05	....	26.98	....	15.75	....	1.22	....
1888.	50.65	—5.40	29.23	+2.25	17.53	+1.78	2.59	+1.37
1889.	51.47	+ .82	29.31	+ .08	17.57	+ .04	1.65	— .94
1890.	52.04	+ .57	29.47	+ .16	17.04	— .53	1.45	— .20
1891.	52.78	+ .74	28.47	—1.00	17.50	+ .46	1.25	— .20
'87—'91.	....	—3.27	....	+1.49	....	+1.75	....	+ .03

## SILVER PLATING.—ALL ESTABLISHMENTS REPORTING.

1887.	56.05	....	26.98	....	15.75	....	1.22	....
1888.	54.82	—1.23	26.99	+ .01	15.66	— .09	2.53	+1.31
1889.	53.61	—1.21	27.07	+ .08	17.17	+1.51	2.15	— .38
1890.	51.11	—2.50	28.60	+1.53	18.40	+1.23	1.89	— .26
1891.	51.35	+ .24	27.82	— .78	19.07	+ .67	1.76	— .13
'87—'91.	....	—4.70	....	+ .84	....	+3.32	....	+ .54

## WOOLEN GOODS.—SAME 8 ESTABLISHMENTS.

1887.	62.82	....	20.10	....	14.22	....	2.86	....
1888.	67.57	+4.75	22.74	+2.64	6.59	—7.63	3.10	+ .24
1889.	67.93	+ .36	22.19	— .55	6.29	— .30	3.59	+ .49
1890.	63.70	—4.23	27.30	+5.11	6.46	+ .17	2.54	—1.05
1891.	65.39	+1.69	25.78	—1.52	6.42	— .04	2.41	— .13
'87—'91.	....	+2.57	....	+5.68	....	—7.80	....	— .45

## WOOLEN GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	62.82	....	20.10	....	14.22	....	2.86	....
1888.	65.74	+2.92	23.48	+3.38	8.10	—6.12	2.68	— .18
1889.	64.56	—1.18	22.09	—1.39	10.78	+2.68	2.57	— .11
1890.	66.21	+1.65	21.56	— .53	9.44	—1.34	2.79	+ .22
1891.	65.40	— .81	21.60	+ .04	10.12	+ .68	2.88	+ .09
'87—'91.	....	+2.58	....	+1.50	....	—4.10	....	+ .02



TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.

## BAKERIES.—SAME 4 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	66.30	....	24.50	....	.70	....	8.50	....
1888.	66.92	+ .62	21.66	—2.84	2.18	+1.48	9.24	+ .74
1889.	65.97	— .95	23.61	+1.95	2.26	+ .08	8.16	—1.08
1890.	65.15	— .82	23.86	+ .25	2.51	+ .25	8.48	+ .32
1891.	63.93	—1.22	24.99	+1.13	2.51	=	8.57	+ .09
'87—'91.	....	—2.37	....	+ .49	....	+1.81	....	+ .07

## BAKERIES.—ALL ESTABLISHMENTS REPORTING.

1887.	66.30	....	24.50	....	.70	....	8.50	....
1888.	66.92	+ .62	21.66	—2.84	2.18	+1.48	9.24	+ .74
1889.	65.57	—1.35	23.81	+2.15	2.27	+ .09	8.35	— .89
1890.	64.74	— .83	23.99	+ .18	2.51	+ .24	8.76	+ .41
1891.	63.55	—1.19	25.10	+1.11	2.51	=	8.84	+ .08
'87—'91.	....	—2.75	....	+ .60	....	+1.81	....	+ .34

## BRASS.—SAME 12 ESTABLISHMENTS.

1887.	61.40	....	31.80	....	1.60	....	5.20	....
1888.	61.53	+ .13	31.55	— .25	1.75	+ .15	5.17	— .03
1889.	64.77	+3.24	28.55	—3.00	1.46	— .29	5.22	+ .05
1890.	69.54	+4.77	23.84	—4.71	1.38	— .08	5.24	+ .02
1891.	68.59	— .95	23.80	— .04	1.39	+ .01	6.22	+ .98
'87—'91.	....	+7.19	....	—8.00	....	— .21	....	+1.02

## BRASS.—ALL ESTABLISHMENTS REPORTING.

1887.	61.40	....	31.80	....	1.60	....	5.20	....
1888.	59.63	—1.77	31.59	— .21	1.72	+ .12	7.06	+1.86
1889.	60.12	+ .49	31.47	— .12	1.38	— .34	7.03	— .03
1890.	63.48	+3.36	28.94	—2.53	1.73	+ .35	5.85	—1.18
1891.	63.02	— .46	29.04	+ .10	1.41	— .32	6.53	+ .68
'87—'91.	....	+1.62	....	—2.76	....	— .19	....	+1.33

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.—CONTINUED.

## CLOCKS.—SAME 3 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	35.70	....	56.90	....	1.50	....	5.90	....
1888.	37.55	+1.85	58.16	+1.26	1.76	+ .26	2.53	-3.37
1889.	37.59	+ .04	57.71	- .45	1.76	=	2.94	+ .41
1890.	42.03	+4.44	50.96	-6.75	2.79	+1.03	4.22	+1.28
1891.	40.97	-1.06	49.58	-1.38	2.70	- .09	6.75	+2.53
'87-'91.	....	+5.27	....	-7.32	....	+1.20	....	+ .85

## CLOCKS.—ALL ESTABLISHMENTS REPORTING.

1887.	35.70	....	56.90	....	1.50	....	5.90	....
1888.	37.55	+1.85	58.16	+1.26	1.76	+ .26	2.53	-3.37
1889.	38.41	+ .86	56.93	-1.23	1.79	+ .03	2.87	+ .34
1890.	42.37	+3.96	50.65	-6.28	2.07	+ .28	4.91	+2.04
1891.	41.65	- .72	49.75	- .90	2.07	=	6.53	+1.62
'87-'91.	....	+5.95	....	-7.15	....	+ .57	....	+ .63

## CORSETS.—SAME 2 ESTABLISHMENTS.

1887.	56.30	....	37.10	....	1.80	....	4.80	....
1888.	50.87	-5.43	41.80	+4.70	1.13	- .67	6.20	+1.40
1889.	50.76	- .11	41.87	+ .07	1.14	+ .01	6.23	+ .03
1890.	49.04	-1.72	41.49	- .38	1.91	+ .77	7.56	+1.33
1891.	49.79	+ .75	41.93	+ .44	1.02	- .89	7.26	- .30
'87-'91.	....	-6.51	....	+4.83	....	- .78	....	+2.46

## CORSETS.—ALL ESTABLISHMENTS REPORTING.

1887.	56.30	....	37.10	....	1.80	....	4.80	....
1888.	52.21	-4.09	39.89	+2.79	1.56	- .24	6.34	+1.54
1889.	56.37	+4.16	34.55	-5.34	1.63	+ .07	7.45	+1.11
1890.	57.24	+ .87	33.50	-1.05	1.60	- .03	7.66	+ .21
1891.	55.79	-1.45	35.59	+2.09	2.51	+ .91	6.11	-1.55
'87-'91.	....	- .51	....	-1.51	....	+ .71	....	+1.31

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.—CONTINUED.

## COTTON.—SAME 6 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	42.50	....	42.20	....	2.90	....	12.40	....
1888.	39.39	—3.11	47.92	+5.72	2.55	— .35	10.14	—2.26
1889.	39.54	+ .15	47.40	— .52	3.48	+ .93	9.58	— .56
1890.	38.00	—1.54	42.87	—4.53	3.14	— .34	15.99	+6.41
1891.	37.81	— .19	42.70	— .17	3.11	— .03	16.38	+ .39
'87—'91.	....	—4.69	....	+ .50	....	+ .21	....	+3.98

## COTTON.—ALL ESTABLISHMENTS REPORTING.

1887.	42.50	....	42.20	....	2.90	....	12.40	....
1888.	50.15	+7.65	34.99	—7.21	2.95	+ .05	11.91	— .49
1889.	53.30	+3.15	34.12	— .87	3.11	+ .16	9.47	—2.44
1890.	61.08	+7.78	25.84	—8.28	2.75	— .36	10.33	+ .86
1891.	59.16	—1.92	30.37	+4.53	2.73	— .02	7.74	—2.59
'87—'91.	....	+16.66	....	—11.83	....	— .17	....	—4.66

## CUTLERY.—SAME 2 ESTABLISHMENTS.

1887.	19.40	....	72.00	....	1.80	....	6.80	....
1888.	20.33	+ .93	71.93	— .07	3.61	+1.81	4.13	—2.67
1889.	19.29	—1.04	64.79	—7.14	3.45	— .16	12.47	+8.34
1890.	21.30	+2.01	67.50	+2.71	2.93	— .52	8.27	—4.20
1891.	25.45	+4.15	64.09	—3.41	2.91	— .02	7.55	— .72
'87—'91.	....	+6.05	....	—7.91	....	+1.11	....	+ .75

## CUTLERY.—ALL ESTABLISHMENTS REPORTING.

1887.	19.40	....	72.00	....	1.80	....	6.80	....
1888.	20.33	+ .93	71.93	— .07	3.61	+1.81	4.13	—2.67
1889.	23.57	+3.24	64.07	— 7.86	2.93	— .68	9.43	+5.30
1890.	27.82	+4.25	52.33	—11.74	2.65	— .28	17.20	+7.77
1891.	28.80	+ .98	52.25	— .08	2.51	— .14	16.44	— .76
'87—'91.	....	+9.40	....	—19.75	....	+ .71	....	+9.64

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.—CONTINUED.

## FORGINGS.—SAME 2 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profit on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	39.40	....	44.40	....	1.10	....	15.10	....
1888.	46.73	+7.33	42.22	-2.18	.76	-.34	10.29	-4.81
1889.	38.67	-8.06	41.34	-.88	.37	-.39	19.62	+9.33
1890.	39.79	+1.12	38.97	-2.37	.43	+.06	20.81	+1.19
1891.	40.00	+.21	39.62	+.65	.39	-.04	19.99	-.82
'87-'91.	....	+.60	....	-4.78	....	-.71	....	+4.89

## FORGINGS.—ALL ESTABLISHMENTS REPORTING.

1887.	39.40	....	44.40	....	1.10	....	15.10	....
1888.	46.73	+7.33	42.22	-2.18	.75	-.35	10.30	-4.80
1889.	40.83	-5.90	40.90	-1.32	.47	-.28	17.80	+7.50
1890.	41.34	+.51	39.55	-1.35	.47	=	18.64	+.84
1891.	41.53	+.19	39.91	+.36	1.55	+1.08	17.01	-1.63
'87-'91.	....	+2.13	....	-4.49	....	+.45	....	+1.91

## GENERAL HARDWARE.—SAME 5 ESTABLISHMENTS.

1887.	38.90	....	58.40	....	1.40	....	1.30	....
1888.	38.45	-.45	56.55	-1.85	1.16	-.24	3.84	+2.54
1889.	34.71	-3.74	58.14	+1.59	1.24	+.08	5.91	+2.07
1890.	37.47	+2.76	50.05	-8.09	1.36	+.12	11.12	+5.21
1891.	37.58	+.11	54.77	+4.72	1.68	+.32	5.97	-5.15
'87-'91.	....	-1.32	....	-3.63	....	+.28	....	+4.67

## GENERAL HARDWARE.—ALL ESTABLISHMENTS REPORTING.

1887.	38.90	....	58.40	....	1.40	....	1.30	....
1888.	39.79	+.89	50.36	-8.04	2.03	+.63	7.82	+6.52
1889.	41.62	+1.83	48.44	-1.92	1.83	-.20	8.11	+.29
1890.	39.93	+1.69	47.39	-1.05	1.88	+.05	10.80	+2.69
1891.	39.78	+.15	48.54	+1.15	1.94	+.06	9.74	-1.06
'87-'91.	....	+.88	....	-9.86	...	+.54	....	+8.44

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.—CONTINUED.

## HATS.—SAME 4 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	52.90	....	44.40	....	1.20	....	1.50	....
1888.	51.20	—1.70	42.39	—2.01	1.72	+ .52	4.69	+3.19
1889.	48.14	—3.06	43.80	+1.41	1.88	+ .16	6.18	+1.49
1890.	51.91	+3.77	42.65	—1.15	1.89	+ .01	3.55	—2.63
1891.	49.54	—2.37	43.73	+1.08	2.09	+ .20	4.64	+1.09
'87—'91.	....	—3.36	....	— .67	....	+ .89	....	+3.14

## HATS.—ALL ESTABLISHMENTS REPORTING.

1887.	52.90	....	44.40	....	1.20	....	1.50	....
1888.	50.06	—2.84	43.11	—1.29	.86	— .34	5.97	+4.47
1889.	51.66	—1.60	41.55	—1.56	1.18	+ .32	5.61	— .36
1890.	49.97	—1.69	42.37	+ .82	1.48	+ .30	6.18	+ .57
1891.	47.10	—2.87	44.41	+2.04	1.64	+ .16	6.85	+ .67
'87—'91.	....	—5.80	....	+ .01	....	+ .44	....	+5.35

## IRON FOUNDRIES.—SAME 3 ESTABLISHMENTS.

1887.	39.90	....	53.70	....	.40	....	6.00	....
1888.	42.15	+2.25	44.39	—9.31	.46	+ .06	13.00	+7.00
1889.	48.55	+6.40	36.17	—8.22	1.43	+ .97	13.85	+ .85
1890.	48.06	— .49	39.26	+3.09	1.26	— .17	11.42	—2.43
1891.	48.25	+ .19	38.44	— .82	1.21	— .05	12.10	+ .68
'87—'91.	....	+8.35	....	—15.26	....	+ .81	....	+6.10

## IRON FOUNDRIES.—ALL ESTABLISHMENTS REPORTING.

1887.	39.90	....	53.70	....	.40	....	6.00	....
1888.	41.75	+1.85	46.95	—6.75	1.31	+ .91	9.99	+3.99
1889.	44.00	+2.25	42.39	—4.56	2.32	+1.01	11.29	+1.30
1890.	44.11	+ .11	43.71	+1.32	1.95	— .37	10.23	—1.06
1891.	44.01	— .10	44.60	+ .89	1.86	— .09	9.53	— .70
'87—'91.	....	+4.11	....	—9.10	....	+1.46	....	+3.53



TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.—CONTINUED.

## IRON, MALLEABLE.—SAME 3 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	36.50	....	55.50	....	1.80	....	6.20	....
1888.	39.94	+3.44	53.09	-2.41	1.59	— .21	5.38	— .82
1889.	39.93	— .01	52.48	— .61	1.00	— .59	6.59	+1.21
1890.	40.04	+ .11	53.71	+1.23	.97	— .03	5.28	-1.31
1891.	40.51	+ .47	52.37	-1.34	.94	— .03	6.18	+ .90
'87-'91.	....	+4.01	....	-3.13	....	— .86	....	— .02

## IRON, MALLEABLE.—ALL ESTABLISHMENTS REPORTING.

1887.	36.50	....	55.50	....	1.80	....	6.20	....
1888.	38.46	+1.96	54.15	-1.35	1.76	— .04	5.63	— .57
1889.	38.14	— .32	52.76	-1.39	1.16	— .60	7.94	+2.31
1890.	38.18	+ .04	54.16	+1.40	1.12	— .04	6.54	-1.40
1891.	38.57	+ .39	52.96	-1.20	1.11	— .01	7.36	+ .82
'87-'91.	....	+2.07	....	-2.54	....	— .69	....	+1.16

## KNIT GOODS.—SAME 3 ESTABLISHMENTS.

1887.	47.80	....	38.50	....	1.00	....	12.70	....
1888.	40.32	-7.48	41.93	+3.43	.97	— .03	16.78	+4.08
1889.	42.40	+2.08	42.49	+ .56	1.10	+ .13	14.01	-2.77
1890.	43.82	+1.42	39.41	-3.08	1.44	+ .34	15.33	+1.32
1891.	43.29	— .53	39.43	+ .02	1.43	— .01	15.85	+ .52
'87-'91.	....	-4.51	....	+ .93	....	+ .43	....	+3.15

## KNIT GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	47.80	....	38.50	....	1.00	....	12.70	....
1888.	53.27	+5.47	32.97	-5.53	1.98	+ .98	11.78	— .92
1889.	55.39	+2.12	32.44	— .53	1.94	— .04	10.23	-1.55
1890.	55.17	— .22	33.75	+1.31	2.36	+ .42	8.72	-1.51
1891.	53.61	-1.56	34.91	+1.16	2.32	— .04	9.16	+ .44
'87-'91.	....	+5.81	....	-3.59	....	+1.32	....	-3.54

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.—CONTINUED.

## MACHINE SHOPS.—SAME 5 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	27.20	....	54.20	....	4.80	....	13.80	....
1888.	26.44	— .76	55.43	+1.23	2.12	—2.68	16.01	+2.21
1889.	25.29	—1.15	54.33	—1.10	2.37	+ .25	18.01	+2.00
1890.	25.40	+ .11	54.13	— .20	1.75	— .62	18.72	+ .71
1891.	25.69	+ .29	54.39	+ .26	1.51	— .24	18.41	— .31
'87—'91	....	—1.51	....	+ .19	....	—3.29	....	+4.61

## MACHINE SHOPS.—ALL ESTABLISHMENTS REPORTING.

1887.	27.20	....	54.20	....	4.80	....	13.80	....
1888.	34.25	+7.05	48.80	—5.40	2.40	—2.40	14.55	+ .75
1889.	33.81	— .44	48.58	— .22	2.48	+ .08	15.13	+ .58
1890.	32.92	— .89	49.58	+1.00	2.22	— .26	15.28	+ .15
1891.	31.43	—1.49	49.98	+ .40	2.22	=	16.37	+1.09
'87—'91.	....	+4.23	....	—4.22	....	—2.58	....	+2.57

## PAPER MILLS.—SAME 3 ESTABLISHMENTS.

1887.	64.90	....	25.70	....	1.20	....	8.20	....
1888.	59.75	—5.15	28.39	+2.69	.94	— .26	10.92	+2.72
1889.	54.07	—5.68	27.12	—1.27	2.38	+1.44	16.43	+5.51
1890.	55.64	+1.57	27.64	+ .52	1.20	—1.18	15.52	— .91
1891.	49.84	—5.80	28.52	+ .88	1.34	+ .14	20.30	+4.78
'87—'91.	....	—15.06	....	+2.82	....	+ .14	....	+12.10

## PAPER MILLS.—ALL ESTABLISHMENTS REPORTING.

1887.	63.10	....	28.30	....	1.00	....	7.60	....
1888.	41.27	—21.83	45.94	+17.64	.57	— .43	12.22	+4.62
1889.	51.60	+10.33	33.64	—12.30	1.52	+ .95	13.24	+1.02
1890.	52.29	+ .69	31.61	— 2.03	2.03	+ .51	14.07	+ .83
1891.	55.10	+ 2.81	32.24	+ .63	2.40	+ .37	10.26	—3.81
'87—'91.	....	— 8.00	....	+ 3.94	....	+1.40	....	+2.66

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE  
OF PRODUCT.—CONTINUED.

## PRINTING AND PUBLISHING.—SAME 3 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	34.30	....	47.50	....	3.80	....	14.40	....
1888.	36.33	+2.03	54.16	+ 6.66	1.73	-2.07	7.78	- 6.62
1889.	34.54	-1.79	43.22	-10.94	1.40	- .33	20.84	+13.06
1890.	35.35	+ .81	46.60	+ 3.38	1.57	+ .17	16.48	- 4.36
1891.	35.41	+ .06	45.90	- .70	1.45	- .12	17.24	+ .76
'87-'91.	....	+1.11	....	- 1.60	....	-2.35	....	+ 2.84

## PRINTING AND PUBLISHING.—ALL ESTABLISHMENTS REPORTING.

1887.	34.30	....	47.50	....	3.80	....	14.40	....
1888.	36.33	+2.03	54.16	+6.66	1.73	-2.07	7.78	-6.62
1889.	32.46	-3.87	47.40	-6.76	3.15	+1.42	16.99	+9.21
1890.	34.67	+2.21	49.31	+1.91	3.22	+ .07	12.80	-4.19
1891.	34.43	- .24	48.22	-1.09	2.37	- .85	14.98	+2.18
'87-'91.	....	+ .13	....	+ .72	....	-1.43	....	+ .58

## RUBBER GOODS.—SAME 2 ESTABLISHMENTS.

1887.	62.20	....	28.90	....	3.10	....	5.80	....
1888.	65.47	+3.27	30.90	+2.00	3.02	- .08	.61	-5.19
1889.	56.29	-9.18	36.78	+5.88	3.99	+ .97	2.94	+2.33
1890.	57.81	+1.52	33.26	-3.52	3.50	- .49	5.43	+2.49
1891.	57.82	+ .01	33.25	- .01	3.50	=	5.43	=
'87-'91.	....	-4.38	....	+4.35	....	+ .40	....	- .37

## RUBBER GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	62.20	....	28.90	....	3.10	....	5.80	....
1888.	64.73	+2.53	31.20	+2.30	3.00	- .10	1.07	-4.73
1889.	61.64	-3.09	32.20	+1.00	2.28	- .72	3.88	+2.81
1890.	62.40	+ .76	30.05	-2.15	3.86	+1.58	3.69	- .19
1891.	60.97	-1.43	29.45	- .60	3.83	- .03	5.75	+2.06
'87-'91.	....	-1.23	....	+ .55	....	+ .73	....	- .05

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE OF PRODUCT.—CONTINUED.

## SHOES.—SAME 2 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	60.10	....	34.10	....	1.80	....	4.00	....
1888.	60.89	+ .79	33.53	— .57	1.61	— .19	3.97	— .03
1889.	57.37	—3.52	34.31	+ .78	1.55	— .06	6.77	+2.80
1890.	57.93	+ .56	33.98	— .33	1.48	— .07	6.61	— .16
1891.	58.03	+ .10	33.95	— .03	1.46	— .02	6.56	— .05
'87—'91.	....	—2.07	....	— .15	....	— .34	....	+2.56

## SHOES.—ALL ESTABLISHMENTS REPORTING.

1887.	58.60	....	36.30	....	2.00	....	3.10	....
1888.	59.75	+1.15	35.45	— .85	1.62	— .38	3.18	+ .08
1889.	56.02	—3.73	36.10	+ .65	1.50	— .12	6.38	+3.20
1890.	56.86	+ .84	35.42	— .68	1.65	+ .15	6.07	— .31
1891.	56.37	— .49	35.81	+ .39	1.56	— .09	6.26	+ .19
'87—'91.	....	—2.23	....	— .49	....	— .44	....	+3.16

## SILK—SAME 4 ESTABLISHMENTS.

1887.	61.00	....	29.00	....	.90	....	9.10	....
1888.	60.27	— .73	27.69	—1.31	.63	— .27	11.41	+2.31
1889.	62.05	+1.78	25.09	—2.60	.87	+ .24	11.99	+ .58
1890.	59.24	—2.81	27.51	+2.42	.91	+ .04	12.34	+ .35
1891.	58.27	— .97	30.54	+3.03	.89	— .02	10.30	—2.04
'87—'91.	....	—2.73	....	+1.54	....	— .01	....	+1.20

## SILK.—ALL ESTABLISHMENTS REPORTING.

1887.	61.00	....	29.00	....	.90	....	9.10	....
1888.	61.15	+ .15	26.10	—2.90	.99	+ .09	11.76	+2.66
1889.	66.05	+ 4.90	23.24	—2.86	1.06	+ .07	9.65	—2.11
1890.	74.26	+ 8.21	17.49	—5.75	.86	— .20	7.39	—2.26
1891.	73.46	— .80	19.08	+1.59	.86	=	6.60	— .79
'87—'91.	....	+12.46	....	—9.92	....	— .04	....	—2.50

TABLE XIV.—PERCENTAGES OF ELEMENTS OF VALUE  
OF PRODUCT.—CONCLUDED.

## SILVER PLATING.—SAME 6 ESTABLISHMENTS.

Year.	Value Stock and Material.		Cost of manufacturing, less rent, interest and taxes.		Rent, Interest and Taxes.		Net Profits on Product.	
	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease	Per cent.	Increase or Decrease
1887.	52.00	....	39.70	....	1.10	....	7.20	....
1888.	49.30	—2.70	45.53	+5.83	2.52	+1.42	2.65	—4.55
1889.	46.69	—2.61	42.52	—3.01	1.50	—1.02	9.29	+6.64
1890.	46.04	— .65	41.16	—1.36	1.28	— .22	11.52	+2.23
1891.	46.82	+ .78	40.79	— .37	1.11	— .17	11.28	— .24
'87—'91.	....	—5.18	....	+1.09	....	+ .01	....	+4.08

## SILVER PLATING.—ALL ESTABLISHMENTS REPORTING.

1887.	52.00	....	39.70	....	1.10	....	7.20	....
1888.	49.96	—2.04	38.87	— .83	2.31	+1.21	8.86	+1.66
1889.	48.72	—1.24	40.20	+1.33	1.95	— .36	9.13	+ .27
1890.	45.12	—3.60	41.49	+1.29	1.67	— .28	11.72	+2.59
1891.	45.65	+ .53	41.68	+ .19	1.56	— .11	11.11	— .61
'87—'91.	....	—6.35	....	+1.98	....	+ .46	....	+3.91

## WOOLEN GOODS.—SAME 8 ESTABLISHMENTS.

1887.	62.90	....	34.40	....	2.90	....	Loss .20	....
1888.	64.30	+1.40	27.92	—6.48	2.95	+ .05	4.83	+5.03
1889.	65.07	+ .77	27.29	— .63	3.43	+ .48	4.21	— .62
1890.	60.19	—4.88	31.89	+4.60	2.39	—1.04	5.53	+1.32
1891.	63.34	+3.15	31.19	— .70	2.33	— .06	3.14	—2.39
'87—'91.	....	+ .44	....	—3.21	....	— .57	....	+3.34

## WOOLEN GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	62.90	....	34.40	....	2.90	....	Loss .20	....
1888.	60.79	—2.11	29.20	—5.20	2.47	— .43	7.54	+7.74
1889.	59.91	— .88	30.51	+1.31	2.38	— .09	7.20	— .34
1890.	60.84	+ .93	28.48	—2.03	2.57	+ .19	8.11	+ .91
1891.	59.89	— .95	29.05	+ .57	2.63	+ .06	8.43	+ .32
'87—'91.	....	—3.01	....	—5.35	....	— .27	....	+8.63



TABLE XV.—INCREASE OR DECREASE IN PER CENT.

	INDUSTRIES.	Estab- lish- ments.	1888.		1889.	
			Cost of Labor.	Profit on Product.	Cost of Labor.	Profit on Product.
1	Bakeries, . . . .	4	— 1.70	+ .74	+ 1.14	— 1.08
2	Bakeries, . . . .	All.	— 1.70	+ .74	+ 1.24	— .89
3	Brass, . . . .	12	— 1.77	— .03	— 1.03	+ .05
4	Brass, . . . .	All.	— 1.56	+ 1.86	+ .99	— .03
5	Clocks, . . . .	3	+ 1.71	— 3.37	— .69	+ .41
6	Clocks, . . . .	All.	+ 1.71	— 3.37	— 1.46	+ .34
7	Corsets, . . . .	2	+ 4.78	+ 1.40	=	+ .03
8	Corsets, . . . .	All.	+ 3.26	+ 1.54	— 1.09	+ 1.11
9	Cotton, . . . .	6	— 2.42	— 2.26	— .47	— .56
10	Cotton, . . . .	All.	— 1.52	— .49	— 1.77	— 2.34
11	Cutlery, . . . .	2	—11.91	— 2.67	+ 2.84	+ 8.34
12	Cutlery, . . . .	All.	—11.91	— 2.67	+ 1.23	+ 5.30
13	Forgings, . . . .	2	+ 4.57	— 4.81	+ .83	+ 9.33
14	Forgings, . . . .	All.	+ 4.57	— 4.80	— 4.18	+ 7.50
15	General Hardware, .	5	+ .98	+ 2.54	+ .45	+ 2.07
16	General Hardware, .	All.	— 1.73	+ 6.52	+ .69	+ .29
17	Hats, . . . .	4	+ 1.86	+ 3.19	+ 3.61	+ 1.49
18	Hats, . . . .	All.	+ 1.87	+ 4.47	— .71	— .36
19	Iron Foundries, . .	3	— 7.15	+ 7.00	— .73	+ .85
20	Iron Foundries, . .	All.	— 3.02	+ 3.99	+ .03	+ 1.30
21	Iron, Malleable, . .	3	— 2.35	— .82	— 1.27	+ 1.21
22	Iron, Malleable, . .	All.	+ 3.05	— .57	— 5.77	+ 2.31
23	Knit Goods, . . . .	3	+ 3.65	+ 4.08	+ .92	— 2.77
24	Knit Goods, . . . .	All.	— 7.42	— .92	— 1.51	— 1.55
25	Machine Shops, . .	5	— 7.28	+ 2.21	+ 2.81	+ 2.00
26	Machine Shops, . .	All.	—16.62	+ .75	+ .20	+ .58
27	Paper Mills, . . . .	3	+ 1.27	+ 2.72	+ 4.07	+ 5.51
28	Paper Mills, . . . .	All.	— .73	+ 4.62	+ 8.29	+ 1.02
29	Printing and Publishing,	3	— .10	— 6.62	+ .43	+13.06
30	Printing and Publishing,	All.	— .10	— 6.62	+ .70	+ 9.21
31	Rubber Goods, . . .	2	+ 2.88	— 5.19	+ 5.40	+ 2.33
32	Rubber Goods, . . .	All.	+ 3.38	— 4.73	+ .78	+ 2.81

## OF LABOR COST AND PROFIT ON PRODUCT.

1890.		1891.		1887 to 1891.		
Cost of Labor.	Profit on Product.	Cost of Labor.	Profit on Product.	Cost of Labor.	Profit on Product.	
+ .13	+ .32	— .50	+ .09	— .93	+ .07	1
— .07	+ .41	— .27	+ .08	— .80	+ .34	2
— 2.38	+ .02	— .16	+ .98	— 5.34	+ 1.02	3
— 1.47	— 1.18	— .06	+ .68	— 2.10	+ 1.33	4
— 4.90	+ 1.28	— .32	+ 2.53	— 4.20	+ .85	5
— 6.67	+ 2.04	— .21	+ 1.62	— 6.63	+ .63	6
— .66	+ 1.33	— .11	— .30	+ 4.01	+ 2.46	7
— .55	+ .21	+ .74	— 1.55	+ 2.36	+ 1.31	8
+ 4.72	+ 6.41	=	+ .89	+ 1.83	+ 3.98	9
— 4.54	+ .86	+ 4.11	— 2.59	— 3.72	— 4.66	10
+ 3.30	— 4.20	— 3.65	— .72	— 9.42	+ .75	11
+ 1.94	+ 7.77	— 9.09	— .76	— 17.83	+ 9.64	12
— 2.04	+ 1.19	+ 1.23	— .82	+ 4.59	+ 4.89	13
+ .16	+ .84	+ .45	— 1.63	+ 1.00	+ 1.91	14
+ 4.80	+ 5.21	— 1.38	— 5.15	+ 4.85	+ 4.67	15
+ 2.63	+ 2.69	— 1.02	— 1.06	+ .57	+ 8.44	16
— 1.45	— 2.63	+ 1.90	+ 1.09	+ 5.92	+ 3.14	17
— .15	+ .57	+ .07	+ .67	+ 1.08	+ 5.35	18
— 1.38	— 2.43	— 1.07	+ .68	— 10.33	+ 6.10	19
— .94	— 1.06	— .05	— .70	— 3.98	+ 3.53	20
+ .78	— 1.31	— 1.67	+ .90	— 4.51	— .02	21
+ 1.01	— 1.40	— 1.48	+ .82	— 3.19	+ 1.16	22
— 1.50	+ 1.32	— .40	+ .52	+ 2.67	+ 3.15	23
+ 1.04	— 1.51	+ .45	+ .44	— 7.44	— 3.54	24
— 5.71	+ .71	+ .34	— .31	— 9.84	+ 4.61	25
— 1.30	+ .15	+ .33	+ 1.09	— 17.39	+ 2.57	26
+ .15	— .91	— .03	+ 4.78	+ 5.46	+ 12.10	27
— 2.39	+ .83	— 1.77	— 3.81	+ 3.40	+ 2.66	28
+ .72	— 4.36	— .04	+ .76	+ 1.01	+ 2.84	29
— .28	— 4.19	+ 9.84	+ 2.18	+ 10.16	+ .58	30
+ 1.94	+ 2.49	=	=	+ 10.22	— .37	31
+ .22	— .19	— .22	+ 2.06	+ 4.16	— .05	32

TABLE XV.—INCREASE OR DECREASE IN PER CENT.

	INDUSTRIES.	Estab- lish- ments.	1888.		1889.	
			Cost of Labor.	Profit on Product.	Cost of Labor.	Profit on Product.
33	Shoes, . . . . .	2	+ .56	— .03	+ 1.43	+ 2.80
34	Shoes, . . . . .	All.	— .62	+ .08	+ 1.78	+ 3.20
35	Silk, . . . . .	4	— 3.02	+ 2.31	— .15	+ .58
36	Silk, . . . . .	All.	— 4.78	+ 2.66	— 1.27	— 2.11
37	Silver Plating, . . .	6	+ 2.25	— 4.55	+ .08	+ 6.64
38	Silver Plating, . . .	All.	+ .01	+ 1.66	+ .08	+ .27
39	Woolen Goods, . . .	8	+ 2.64	+ 5.03	— .55	— .62
40	Woolen Goods, . . .	All.	+ 3.38	+ 7.74	— 1.39	— .34

## OF LABOR COST AND PROFIT ON PRODUCT.—CONCLUDED.

1890.		1891.		1887 to 1891.		
Cost of Labor.	Profit on Product.	Cost of Labor	Profit on Product.	Cost of Labor.	Profit on Product.	
+ .14	— .16	+ .13	— .05	+ 2.26	+ 2.56	33
— .82	— .31	+ .05	+ .19	+ .39	+ 3.16	34
+ .84	+ .35	— .23	— 2.04	— 2.56	+ 1.20	35
— 5.29	— 2.26	— .16	— .79	—11.50	— 2.50	36
+ .16	+ 2.33	— 1.00	— .24	+ 1.49	+ 4.08	37
+ 1.53	+ 2.59	— .78	— .61	+ .84	+ 3.91	38
+ 5.11	+ 1.32	— 1.52	— 2.39	+ 5.68	+ 3.34	39
— .53	+ .91	+ .04	+ .32	+ 1.50	+ 8.63	40

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.

## BAKERIES.—SAME 4 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ .50	.....	\$ 4.07	.....	\$ 2,206.98	.....
1888.	.60	+20.00	5.56	+36.61	2,975.82	+34.84
1889.	.55	— 8.33	4.63	—16.73	2,547.17	—14.40
1890.	.50	— 9.09	4.17	— 9.94	2,366.67	— 7.09
1891.	.51	+ 2.00	4.48	+ 7.43	2,672.72	+12.93

## BAKERIES.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .50	.....	\$ 4.07	.....	\$ 2,206.98	.....
1888.	.60	+20.00	5.56	+36.61	2,975.82	+34.84
1889.	.54	—10.00	4.51	—18.89	2,500.00	—15.99
1890.	.49	— 9.26	4.16	— 7.76	2,342.74	— 6.29
1891.	.51	+ 4.08	4.43	+6.49	2,479.82	+ 5.85

## BRASS.—SAME 12 ESTABLISHMENTS.

1887.	\$ .82	.....	\$ 3.63	.....	\$ 1,691.67	.....
1888.	.75	— 8.54	3.59	— 1.10	1,706.90	+ .90
1889.	.68	— 9.33	3.45	— 3.90	1,657.82	— 2.88
1890.	.55	—19.12	3.11	— 9.86	1,417.01	—14.52
1891.	.55	=	3.21	+ 3.21	1,420.78	+ .26

## BRASS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .82	.....	\$ 3.63	.....	\$ 1,691.67	.....
1888.	.73	—10.98	3.52	— 3.03	1,598.20	— 5.53
1889.	.76	+ 4.11	3.53	+ .28	1,660.40	+ 3.89
1890.	.67	—11.84	3.30	— 6.52	1,539.24	— 7.30
1891.	.67	=	3.33	+ .91	1,526.43	— .83



TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONTINUED.

## CLOCKS.—SAME 3 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ 1.12	.....	\$ 2.40	.....	\$ 1,188.47	.....
1888.	1.47	+31.25	2.94	+22.50	1,514.16	+27.40
1889.	1.41	— 4.08	2.87	— 2.36	1,528.58	+ .95
1890.	1.30	— 7.80	2.99	+ 4.18	1,670.38	+ 9.27
1891.	1.26	— 3.08	3.00	+ .33	1,680.41	+ .60

## CLOCKS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.12	.....	\$ 2.40	.....	\$ 1,188.47	.....
1888.	1.47	+31.25	2.94	+22.50	1,514.16	+27.40
1889.	1.34	— 8.84	2.78	— 5.44	1,477.07	— 2.45
1890.	1.14	—14.93	2.78	=	1,488.73	+ .79
1891.	1.12	— 1.75	2.79	+ .36	1,496.29	+ .51

## CORSETS.—SAME 2 ESTABLISHMENTS.

1887.	\$ .49	.....	\$ 1.87	.....	\$ 669.85	.....
1888.	.38	—22.45	1.29	—31.02	423.36	—36.80
1889.	.40	+ 5.26	1.34	+ 3.88	443.31	+ 4.71
1890.	.41	+ 2.50	1.41	+ 5.23	532.82	+20.19
1891.	.42	+ 2.44	1.42	+ .71	537.42	+ .86

## CORSETS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .49	.....	\$ 1.87	.....	\$ 669.85	.....
1888.	.48	— 2.04	1.66	—11.23	517.93	—22.68
1889.	.60	+25.00	2.18	+30.72	884.43	+70.74
1890.	.68	+13.33	2.26	+ 3.62	730.51	—17.40
1891.	.56	—17.64	2.02	—10.62	665.34	— 8.91

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONTINUED.

## COTTON.—SAME 6 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ 1.84	.....	\$ 7.26	.....	\$ 2,142.33	.....
1888.	1.87	+ 1.63	7.84	+ 7.99	2,257.00	+ 5.35
1889.	1.84	- 1.60	7.83	- .13	2,261.07	+ .13
1890.	1.76	- 4.55	6.83	-12.67	2,159.43	- 4.50
1891.	1.76	=	6.88	+ .73	2,140.90	- .86

## COTTON—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.84	.....	\$ 7.26	.....	\$ 2,142.33	.....
1888.	1.69	- 8.15	7.01	- 3.44	2,063.32	- 3.69
1889.	1.54	- 8.88	6.65	- 5.14	1,979.67	- 4.05
1890.	1.29	-16.23	6.81	+ 2.40	2,010.99	+ 1.59
1891.	1.44	+11.63	6.22	- 8.66	1,840.16	- 8.49

## CUTLERY.—SAME 2 ESTABLISHMENTS.

1887.	\$ 1.12	.....	\$ 1.73	.....	\$ 772.73	.....
1888.	1.04	- 7.41	2.68	+54.91	1,000.00	+29.40
1889.	1.20	+15.38	2.27	-15.30	1,062.50	+ 6.25
1890.	.98	-18.33	1.68	-21.59	818.18	-22.99
1891.	.92	- 6.12	1.65	- 1.78	776.91	- 5.04

## CUTLERY.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.12	.....	\$ 1.73	.....	\$ 772.73	.....
1888.	1.04	- 7.41	2.68	+54.91	1,000.00	+29.40
1889.	.93	-10.58	1.87	-30.22	1,034.48	+ 3.45
1890.	1.16	+24.73	2.31	+23.53	1,391.59	+34.52
1891.	1.22	+ 5.17	2.84	+22.94	1,489.04	+ 7.00

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.— CONTINUED.

## FORGINGS.—SAME 2 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ 1.36	....	\$ 4.76	....	\$ 2,872.26	....
1888.	1.30	— 4.41	3.77	—20.80	2,482.07	—13.90
1889.	.98	—24.62	3.11	—17.51	2,051.16	—17.36
1890.	.82	—16.33	2.81	— 9.65	1,777.78	—13.33
1891.	.86	+ 4.65	2.82	+ .36	2,000.00	+12.55

## FORGINGS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.36	....	\$ 4.76	....	\$ 2,872.26	....
1888.	1.30	— 4.41	3.77	—20.80	2,482.07	—13.90
1889.	.91	—30.00	3.25	—13.79	1,880.26	—24.25
1890.	.82	— 9.89	2.95	— 9.25	1,693.10	— 9.95
1891.	.82	=	2.86	— 3.05	1,714.76	+ 1.28

## GENERAL HARDWARE.—SAME 5 ESTABLISHMENTS.

1887.	\$ 1.08	....	\$ 2.79	....	\$ 1,443.52	....
1888.	.99	— 7.41	2.58	— 7.53	1,216.27	—15.74
1889.	1.15	+16.16	3.02	+17.05	1,423.65	+17.05
1890.	1.12	— 2.61	2.79	— 7.62	1,412.51	— .78
1891.	1.19	+ 6.24	2.87	+ 2.87	1,472.76	+ 4.26

## GENERAL HARDWARE.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.08	....	\$ 2.79	....	\$ 1,443.52	....
1888.	1.02	— 5.56	2.98	+ 6.81	1,425.95	— 1.22
1889.	.92	— 9.80	2.63	—11.74	1,205.11	—15.48
1890.	.88	— 4.35	2.44	— 7.22	1,163.62	— 3.44
1891.	.88	=	2.47	+ 1.23	1,188.16	+ 2.11

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONTINUED.

## HATS.—SAME 4 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ .38	....	\$ 1.11	....	\$ 633.49	....
1888.	.41	+ 7.89	1.16	+ 4.50	695.18	+ 9.74
1889.	.43	+ 4.88	1.13	— 2.58	665.63	— 4.25
1890.	.35	—18.60	.92	—18.58	533.85	—19.80
1891.	.38	+ 8.57	.97	+ 5.43	562.05	+ 5.28

## HATS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .38	....	\$ 1.11	....	\$ 633.49	....
1888.	.47	+23.68	1.30	+17.12	692.57	+ 9.33
1889.	.43	— 8.51	1.23	— 5.38	662.86	— 4.29
1890.	.40	— 6.98	1.13	— 8.13	627.91	— 5.27
1891.	.41	+ 2.50	1.20	+ 6.19	670.97	+ 6.86

## IRON FOUNDRIES.—SAME 3 ESTABLISHMENTS.

1887.	\$ .89	....	\$ 2.22	....	\$ 991.76	....
1888.	.83	— 6.74	2.70	+21.62	1,480.22	+49.25
1889.	.91	+ 9.64	3.05	+12.96	1,512.65	+ 2.18
1890.	.86	— 5.49	2.98	— 2.29	1,426.32	— 5.71
1891.	.85	— 1.17	3.01	+ 1.00	1,450.80	+ 1.72

## IRON FOUNDRIES.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .89	....	\$ 2.22	....	\$ 991.76	....
1888.	.81	— 8.98	2.27	+ 2.25	1,517.18	+52.98
1889.	.78	— 3.70	2.21	— 2.64	1,204.19	—20.64
1890.	.76	— 2.56	2.19	— .91	1,249.85	+ 3.79
1891.	.75	— 1.32	2.14	— 2.28	1,224.72	— 2.01

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONTINUED.

## IRON, MALLEABLE.—SAME 3 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ .69	....	\$ 1.61	....	\$ 782.21	....
1888.	.73	+ 6.56	1.80	+11.80	790.93	+ 1.11
1889.	.62	—15.07	1.58	—12.22	785.58	— .67
1890.	.74	+19.35	1.84	+16.46	834.04	+ 6.17
1891.	.75	+ 1.35	1.96	+ 6.52	887.02	+ 6.35

## IRON, MALLEABLE.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .69	....	\$ 1.61	....	\$ 781.21	....
1888.	.76	+10.14	1.66	+ 3.11	835.11	+ 6.73
1889.	1.23	+61.84	3.13	+88.55	1,619.14	+93.88
1890.	.73	—40.65	1.83	—41.53	886.27	—45.26
1891.	.75	+ 2.74	1.93	+ 5.46	939.16	+ 5.97

## KNIT GOODS.—SAME 3 ESTABLISHMENTS.

1887.	\$ 1.08	....	\$ 3.44	....	\$ 1,268.77	.. .
1888.	1.16	+ 7.41	3.50	+ 1.74	1,286.52	+ 1.39
1889.	1.08	— 6.90	3.08	—12.00	1,015.13	—21.09
1890.	1.04	— 3.70	3.14	+ 1.94	990.04	— 2.47
1891.	1.02	— 1.92	3.14	=	994.00	+ .40

## KNIT GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.08	....	\$ 3.44	....	\$ 1,268.77	....
1888.	.77	—28.70	3.06	—11.04	882.65	—30.43
1889.	.68	—11.69	2.79	— 8.82	846.03	— 4.15
1890.	.65	— 4.41	2.54	— 8.96	825.87	— 2.38
1891.	.67	+ 3.07	2.57	+ 1.18	847.74	+ 2.64



TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONTINUED.

## MACHINE SHOPS.—SAME 5 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ 2.05	.....	\$ 3.89	.....	\$ 2,232.12	.....
1888.	1.43	—30.24	4.07	+ 4.63	2,416.95	+ 8.28
1889.	1.69	+18.04	3.63	—10.81	2,254.42	— 6.72
1890.	1.52	—10.06	3.67	+ 1.12	2,259.11	+ .21
1891.	1.54	+ 1.31	3.59	— 2.18	2,255.30	— .17

## MACHINE SHOPS.—ALL ESTABLISHMENTS REPORTING.

1887	\$ 2.05	.....	\$ 3.89	.....	\$ 2,232.12	.....
1888.	1.41	—31.22	3.65	— 6.42	2,096.94	— 6.05
1889.	1.26	—10.64	3.31	— 9.04	1,877.45	—10.47
1890.	1.18	— 6.35	3.21	— 3.02	1,822.72	— 2.92
1891.	1.21	+ 2.54	3.29	+ 2.49	1,836.77	+ .77

## PAPER MILLS.—SAME 5 ESTABLISHMENTS.

1887.	\$ .93	.....	\$ 5.90	.....	\$ 2,543.19	.....
1888.	1.06	+13.98	6.03	+ 2.20	2,558.03	+ .58
1889.	1.05	— .94	5.33	—11.61	2,498.93	— 2.31
1890.	1.18	+12.38	5.80	+ 8.82	2,708.33	+ 8.38
1891.	1.15	— 2.54	5.98	+ 3.10	2,800.00	+ 3.38

## PAPER MILLS.—ALL ESTABLISHMENTS REPORTING.

1887.	.93	.....	\$ 5.90	.....	\$ 2,543.19	.....
1888.	.97	+ 4.30	6.77	+14.76	2,721.74	+ 7.02
1889.	.83	—14.43	3.89	—42.54	2,228.55	—18.12
1890.	.89	+ 7.23	4.67	+20.05	2,411.18	+ 8.20
1891.	.85	— 4.50	4.61	— 1 28	2,330.22	— 3.35

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONTINUED.

## PRINTING AND PUBLISHING.—SAME 3 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ 1.57	.....	\$ 4.10	.....	\$ 1,587.88	.....
1888.	2.05	+30.57	5.07	+23.66	2,344.25	+47.63
1889.	1.62	-20.98	4.62	- 8.88	2,329.14	- .64
1890.	1.83	+12.91	4.88	+ 5.63	2,372.80	+ 1.87
1891.	1.81	- 1.09	4.86	- .41	2,361.70	- .47

## PRINTING AND PUBLISHING.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.57	.....	\$ 4.10	.....	\$ 1,587.88	.....
1888.	2.05	+30.57	5.07	+23.66	2,344.25	+47.63
1889.	1.46	-28.78	3.96	-21.89	1,920.03	-18.10
1890.	1.57	+ 7.53	4.09	+ 3.28	1,889.42	- 1.59
1891.	1.47	- 6.37	3.93	- 3.91	1,829.67	- 3.16

## RUBBER GOODS.—SAME 2 ESTABLISHMENTS.

1887.	\$ 1.09	.....	\$ 5.31	.....	\$ 2,651.20	.....
1888.	1.27	+16.51	5.13	- 3.20	2,162.85	-18.42
1889.	1.70	+33.86	5.79	+12.86	2,188.04	+ 1.16
1890.	1.53	-10.00	5.02	-13.30	1,857.47	-15.11
1891.	1.53	=	5.01	- .20	2,014.05	+ 8.43

## RUBBER GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.09	.....	\$ 5.31	.....	\$ 2,651.20	.....
1888.	1.24	+13.77	4.98	- 6.21	2,075.55	-21.71
1889.	1.13	- 8.88	4.54	- 8.84	1,771.35	-14.66
1890.	1.08	- 4.42	4.25	- 6.39	1,629.45	- 8.01
1891.	1.02	- 5.55	4.13	- 2.82	1,586.88	- 2.61

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONTINUED.

## SHOES.—SAME 3 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ .43	....	\$ 1.50	....	\$ 749.00	....
1888.	.41	— 4.65	1.53	+20.00	771.55	+ 3.01
1889.	.48	+17.07	1.71	+11.76	874.43	+13.33
1890.	.44	— 8.33	1.58	— 7.60	795.08	— 9.16
1891.	.44	=	1.56	— 1.26	789.47	— .71

## SHOES.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .43	....	\$ 1.50	....	\$ 749.00	....
1888.	.42	— 2.33	1.47	—20.00	712.87	— 4.82
1889.	.46	+ 9.52	1.58	+ 7.48	728.60	+ 2.21
1890.	.49	+ 6.52	1.74	+10.13	746.24	+ 2.41
1891.	.46	— 6.12	1.60	— 8.05	712.26	— 4.55

## SILK.—SAME 4 ESTABLISHMENTS.

1887.	\$ 1.18	....	\$ 5.30	....	\$ 1,923.16	....
1888.	1.08	— 8.47	5.74	+ 8.30	2,063.80	+ 7.31
1889.	.94	—12.96	4.99	—13.07	1,951.96	— 5.42
1890.	.88	— 6.28	4.52	— 9.42	1,703.34	—12.73
1891.	1.03	+17.05	5.20	+15.93	2,040.91	+19.82

## SILK.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.18	....	\$ 5.30	....	\$ 1,923.16	....
1888.	.95	—19.49	5.44	+ 2.64	1,879.14	— 2.28
1889.	.80	—15.79	4.76	—12.50	1,712.93	— 8.85
1890.	.54	—32.50	4.36	— 8.40	1,527.27	—10.84
1891.	.59	+ 9.26	4.80	+10.09	1,728.87	+13.20

TABLE XVI.—AMOUNT OF CAPITAL PER UNIT OF PRODUCT  
AND OF WAGES AND PER EMPLOYEE.—CONCLUDED.

## SILVER PLATING.—SAME 6 ESTABLISHMENTS.

Year.	Per \$1.00 of Product.	Per cent. Increase or Decrease.	Per \$1.00 of Wages.	Per cent. Increase or Decrease.	Per Employee.	Per cent. Increase or Decrease.
1887.	\$ 1.07	....	\$ 4.26	....	\$ 2,409.36	....
1888.	1.48	+38.31	5.23	+22.77	2,692.39	+11.75
1889.	1.34	— 9.46	5.03	— 3.82	2,659.80	— 1.21
1890.	1.31	— 2.24	5.03	=	2,638.13	— .81
1891.	1.25	— 4.58	4.97	— 1.19	2,774.71	+ 5.18

## SILVER PLATING.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ 1.07	....	\$ 4.26	....	\$ 2,409.36	....
1888.	1.25	+16.82	5.11	+19.95	2,593.94	+ 7.66
1889.	1.19	— 4.00	4.84	— 5.28	2,316.63	—10.61
1890.	1.10	— 7.54	4.34	—10.33	2,261.16	— 2.39
1891.	1.08	— 1.81	4.38	+ .92	2,364.87	+ 4.59

## WOOLEN GOODS.—SAME 8 ESTABLISHMENTS.

1887.	\$ .88	....	\$ 4.37	....	\$ 1,476.57	....
1888.	1.02	+15.91	4.72	+ 8.01	1,696.99	+14.92
1889.	.98	— 3.92	4.63	— 1.91	1,623.68	— 4.32
1890.	1.13	+15.31	4.37	— 5.62	1,546.02	— 4.78
1891.	1.07	— 5.31	4.29	— 1.83	1,536.62	— .61

## WOOLEN GOODS.—ALL ESTABLISHMENTS REPORTING.

1887.	\$ .88	....	\$ 4.37	....	\$ 1,476.57	....
1888.	1.02	+15.91	4.67	+ 6.86	1,635.72	+10.78
1889.	.95	— 6.86	4.63	— .86	1,658.48	+ 1.39
1890.	.96	+ 1.05	4.82	+ 4.10	1,713.31	+ 3.30
1891.	.88	— 8.33	4.45	— 7.67	1,644.44	— 4.02

TABLE XVII.—PER CENT OF INCREASE OR DECREASE, 1887 TO 1891, OF CAPITAL PER UNIT OF PRODUCT AND OF WAGES AND PER EMPLOYEE.

	INDUSTRIES.	Per \$1.00 of Product.		Per \$1.00 of Wages.		Per Employee.	
		Same 82 Es- tablish- ments.	All Es- tab- lish- ments.	Same 82 Es- tablish- ments.	All Es- tab- lish- ments.	Same 82 Es- tablish- ments.	All Es- tab- lish- ments.
1	Bakeries, . . . .	+ 2.00	+ 2.00	+10.07	+ 8.84	+21.10	+12.36
2	Brass, . . . .	-32.93	-18.29	-11.57	- 8.26	-16.01	- 9.77
3	Clocks, . . . .	+12.50	=	+25.00	+16.26	+41.41	+25.91
4	Corsets, . . . .	-14.28	+14.28	-24.06	+ 8.02	-19.77	- .67
5	Cotton, . . . .	- 4.34	-21.74	- 5.22	-14.32	- .07	-14.11
6	Cutlery, . . . .	-17.85	+ 8.93	- 4.62	+64.16	+ .54	+92.56
7	Forgings, . . . .	-36.76	-39.70	-40.75	-39.91	-30.37	-40.30
8	General Hardware, .	+10.18	-18.51	+ 2.87	-11.46	+ 2.02	-17.68
9	Hats, . . . .	=	+ 7.89	- 3.60	+ 8.11	-11.28	+ 5.92
10	Iron Foundries, . .	- 4.50	-15.73	+35.59	- 3.60	+47.28	+23.48
11	Iron, Malleable, . .	+ 8.70	+ 8.70	+21.74	+19.88	+13.53	+20.10
12	Knit Goods, . . .	- 5.55	-37.96	- 8.72	-25.03	-21.65	-33.18
13	Machine Shops, . .	-24.88	-40.98	- 7.71	-15.42	+ 1.04	-17.71
14	Paper Mills, . . .	+23.66	- 8.60	+ 1.36	-21.86	+10.10	- 8.37
15	Print. and Pub., . .	+15.29	- 6.37	+18.54	- 4.15	+48.73	+15.23
16	Rubber Goods, . .	+40.36	- 6.42	- 5.65	-22.22	-24.04	-40.15
17	Shoes, . . . .	+ 2.30	+ 6.98	+ 4.00	+ 6.66	+ 5.40	- 4.90
18	Silk, . . . .	-12.71	-50.00	- 1.89	- 9.44	+ 6.12	-10.10
19	Silver Plating, . .	+16.82	+ .93	+16.67	+ 2.82	+15.17	- 1.43
20	Woolen Goods, . .	+21.60	=	- 1.83	+ 1.83	+ 4.07	+11.37



TABLE XVIII.—AVERAGE CAPITAL (FIVE YEARS, 1887 TO 1891, INCLUSIVE) PER UNIT OF PRODUCT AND OF WAGES AND PER EMPLOYEE.

	INDUSTRIES.	Per \$1.00 of Product.		Per \$1.00 of Wages.		Per Employee.	
		Same 82 Es- tablish- ments.	All Es- tab- lish- ments.	Same 82 Es- tablish- ments.	All Es- tab- lish- ments.	Same 82 Es- tablish- ments.	All Es- tab- lish- ments.
1	Bakeries, . . . .	\$ .53	\$ .53	\$4.58	\$4.55	\$2,553.87	\$2,501.07
2	Brass, . . . .	.67	.73	3.40	3.46	1,578.84	1,603.19
3	Clocks, . . . .	1.31	1.24	2.84	2.74	1,516.40	1,432.94
4	Corsets, . . . .	.42	.56	1.47	2.00	521.35	693.61
5	Cotton, . . . .	1.81	1.56	7.33	6.79	2,192.15	2,007.30
6	Cutlery, . . . .	1.05	1.10	2.00	2.29	886.07	1,137.57
7	Forgings, . . . .	1.08	1.04	3.46	3.52	2,236.66	2,128.49
8	General Hardware, .	1.11	.96	2.81	2.66	1,393.74	1,285.27
9	Hats, . . . .	.39	.42	1.06	1.22	618.04	657.56
10	Iron Foundries, . .	.87	.80	2.79	2.21	1,372.35	1,237.54
11	Iron, Malleable, . .	.71	.83	1.76	2.03	815.96	1,012.37
12	Knit Goods, . . . .	1.08	.77	3.26	2.88	1,110.80	934.21
13	Machine Shops, . .	1.65	1.42	3.77	3.47	2,283.58	1,973.20
14	Paper Mills, . . . .	1.07	.89	5.81	5.17	2,621.70	2,446.98
15	Print. and Pub., . .	1.78	1.62	4.71	4.23	2,199.15	1,914.25
16	Rubber Goods, . . .	1.42	1.11	5.25	4.64	2,174.72	1,942.89
17	Shoes, . . . .	.44	.45	1.57	1.58	795.91	729.80
18	Silk, . . . .	1.02	.81	5.15	4.93	1,936.63	1,754.27
19	Silver Plating, . . .	1.29	1.14	4.90	4.59	2,634.88	2,389.19
20	Woolen Goods, . . .	1.02	.94	4.48	4.59	1,575.98	1,625.70
	Average, . . . .	1.03	.95	3.62	3.48	1,650.94	1,570.37







NINTH ANNUAL REPORT

OF THE

BUREAU OF LABOR STATISTICS

OF THE

STATE OF CONNECTICUT,

FOR THE

YEAR ENDING NOVEMBER 30, 1893.

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PRINTED BY ORDER OF THE GENERAL ASSEMBLY.

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## LETTER OF TRANSMITTAL.

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HARTFORD, December 1, 1893.

*To His Excellency,* LUZON B. MORRIS,

*Governor of Connecticut:*

The Ninth Annual Report of the Bureau of Labor Statistics is herewith presented. I have the honor to be

Respectfully yours,

ROBERT J. VANCE,

*Commissioner.*

GEORGE E. BEARN, *Clerk.*





## PART I.

### INTRODUCTION.



## INTRODUCTION.

---

The Ninth Annual Report of the Bureau of Labor Statistics consists mainly of an effort to ascertain the exact situation of the factory workers in the State relative to their hours of labor, methods of payment, and the effect of recent legislation on these subjects. The figures given and statements made relate to the conditions that obtained in 1892. The whole may properly be termed an inventory of existing conditions, and, for the purposes of comparison, as complete data as could be secured for the years 1860 and 1880 is also given. These comparisons are very interesting, illustrating as they do, by a graphic and easily understood method, the advance that has been made by lessening the hours of labor and increasing the frequency of payments. They also, by reason of the fact that they are localized, as well as being grouped into industries, may better serve as a sign-post, pointing the way to still further progress in the future.

To a certain extent they reflect the effect of so-called labor legislation. The idea that all sorts of evils, or even grievances, can be eliminated by statute, has been growing recently, and both employers and employes have been inclining towards paternalism in government. How much error there is in theories built upon the assumption that law can remedy all the complaints of the body politic or economic is a matter of conjecture. Certain it is that enactments cannot relieve many ailments for which they are asserted to be a specific, while on the other hand it is doubtless true that the State can do much, by crystalizing public opinion in the statute book, that individuals or associations could never accomplish. The data herewith presented illustrates this latter proposition. Primarily, shorter hours, the bettering of the condition of women and children who work in factories, and more frequent pay-days, are the results of enlightened public opinion on these subjects, but the laws that were passed in deference to this

sentiment have hastened the reforms and rendered their acceptance and practice much more universal. Moreover, the predictions of the pessimists have not been fulfilled, inasmuch as the changes favoring the factory employes have been accompanied by a rapid, substantial, and gratifying advance in the number, size, and prosperity of the industries of the State.

It is sometimes wise to stop long enough to ascertain our present position before endeavoring to advance further. In the legislative progress of reform there are seasons of activity and of rest. At present we seem to be in one of the latter periods. Consequently it is well just now to state what has been done, to specify the causes and define the results. Undoubtedly the two principal laws passed recently in reference to the labor problem were enacted in 1887. During that year the statutes limiting the hours of labor of women and children to ten daily, or sixty hours a week, and providing for weekly payments, were enacted. They came into existence after much agitation, and evoked considerable opposition. Yet both have since demonstrated their desirability, and no movement to abolish either would be successful. The accompanying report has for its main motive the statement of exact facts relative to what these laws have accomplished and their results in different parts of the State.

It is a pleasure to be able to report that their acceptance, particularly the one in reference to hours of labor, has been almost universal. Although varying schedules of daily running time are in operation in different portions of the State, the total for the week seldom exceeds sixty hours, while in almost all cases where it does, women and children are not expected to work more than the sixty prescribed by law. It is also an interesting fact that a law, intended to apply to women and children only, has had the effect of reducing the time of thousands of male employes to the same limit. An examination of the data relative to the hours of labor, particularly in New London, Windham and Tolland counties will result in much information relative to this collateral result of Section 1745 of the General Statutes.

The observance of the weekly payment law is not so general, although the law has resulted in a great increase in the frequency of payments, all over the State. Weekly payments are now the rule instead of the exception. The number of incorporated companies that do not comply with the law, or acknowledge its letter while repudiating its spirit, is small. To a certain extent the law

is ambiguous and should be made clearer. Some of the corporations that evade it were organized under the laws of other states and claim immunity by reason of this fact. Others state that their workmen prefer longer intervals between pay days. The non-observers are comparatively few, however, as the great mass of corporations are now heartily in favor of the practice of weekly payments and could not be induced to return to the old system.

In order to secure accuracy the results given are based upon inquiries made by careful agents who visited the establishments and secured their information at first hands. They were carefully instructed to use great caution in their investigations and to report the actual facts just as they found them. Therefore, within its scope, the report presented is believed to be a correct industrial census of the State. As the object was to secure information relative to factory employes in establishments where a fixed rule as to hours of labor and methods of payment was in force, some of the employes of the State could not be classified, and, as they are not amenable to present laws, it was not necessary to do it. The only important omission, however, relates to railroad employes, as, owing to the irregularity of their hours of labor, it was impossible to include them in tables that presupposed fixed working periods in each day. The other omissions include cigar makers, to whom a separate space is given, barbers, dressmakers and milliners, tailors and similar avocations in which but few people are assembled in any one establishment, and which do not have uniform working hours. Information relative to the building trades and municipal laborers, owing to the fact that different rules seem to govern in different sections, is presented separately. Among this class of workmen there has been much agitation recently for fewer hours of labor. In some portions of the State the result has been a reduction from ten to nine hours, and the varying conditions are presented by localities for the information of those who may be interested in this movement, or desirous of studying its results. The extent of the main inquiry and the thoroughness with which it has been conducted is indicated by the fact that 1,801 establishments, employing 153,269 people, furnish the basis for the statistics and conclusions.

#### CLASSIFICATION BY INDUSTRIES.

In addition to the presentation of the facts secured by towns and counties it was thought best to assemble them by industries as well. This compilation gives to all interested in any one calling an oppor-



tunity to compare the conditions in that industry as they exist in different portions of the State. The groups into which the figures naturally resolve themselves number twenty-four, which, with one miscellaneous classification, makes the whole number of subdivisions under this head twenty-five. In order that the scheme, under which the different establishments were assorted, may be understood, the various grand divisions, with the industries each includes, are herewith presented :

ARMS AND AMMUNITION.

Cannon (Yacht), Fuses, Gun Implements, Gun Sights,  
Percussion Caps, Powder.

BOOTS AND SHOES AND LEATHER GOODS.

Belting, Harness, Overgaiters.

BRASS AND BRASS GOODS.

Bells, Bird Cages, Bronze, Copper, Metal Goods, Pins,  
Plumbers' Supplies.

BREWERIES AND DISTILLERIES.

BRICK.

CARRIAGES AND CARRIAGE PARTS.

Carriage Bolts, Carriage Lamps, Carriage Steps, Wagons,  
Wagon Springs, Wheels.

COTTON.

Cordage.

CLOCKS, WATCHES AND TOYS.

Clock Movements, Clock Parts.

CORSETS AND CORSET MATERIALS.

Corset Steels, Corset Wires, Dress Shields, Dress Stays,  
Embroidery.

CUTLERY AND TOOLS.

Augers, Check Punches, Chisels, Files, Needles, Planes,  
Razors, Shears.

ELECTRICAL GOODS.

Generators, Graphophones, Insulated Wire, Motors.

GENERAL HARDWARE.

Belt-hooks, Bolts and Tacks, Eyelets, Chains, Iron Rivets,  
Locks, Mouse Traps, Tin and Steel Spoons, Wire Goods,  
Wire Springs.

## HATS AND HAT MATERIALS.

## IRON AND STEEL.

Bicycles, Boilers, Castings, Chucks, Cornices, Forgings, Injectors, Iron Wire, Machinery, Machine Shops, Nails, Rolling Mills, Screws, Tin Cans, Valves.

## PAPER MILLS.

## PAPER BOXES, BAGS AND ENVELOPES.

## PIANOS AND ORGANS.

## PRINTING AND BOOK BINDING.

Blank Books, Cards, Electrotyping, Lithographing, Paper Ruling, Photo-Engraving, Postal Cards, Tags.

## RUBBER GOODS.

Rubber Reclaiming, Rubber Stamps, Shoe-coring.

## SILK, KNIT GOODS AND OTHER TEXTILES, EXCEPT COTTON AND WOOL.

Awnings, Carpets, Coach and other Lace, Comfortables, Flags, Ladies' Underwear, Linen, Ruffles, Sails, Shirts, Velvet, Webbing.

## SILVER WARE.

German Silver Goods, Plating.

## STONE CUTTING AND QUARRYING.

Marble Yards, Slate Mantels.

## WOOD WORKING.

Barrels, Cabinet Work, Chairs, Furniture, Ladders, Mouldings, Packing Boxes (including Cigar Boxes), Patterns, Sash, Doors, Blinds, etc., Saw Mills, Ship and Boat Building, Wood Mantels, Wood Turning.

## WOOLEN GOODS.

Blankets, Plush, Shoddy.

## MISCELLANEOUS.

In addition to the above, and as again indicating the complete system that characterized the original inquiries, and the arrangement of the data secured, a statement of the number of establishments and employes grouped under the different industrial captions is appended:

INDUSTRIES.	Number of Establish- ments.	Number of Employees.
Arms and Ammunition, . . . . .	18	4,115
Boots, Shoes, and Leather Goods, . . . . .	49	2,229
Brass and Brass Goods, . . . . .	97	15,348
Breweries and Distilleries, . . . . .	17	261
Brick, . . . . .	45	1,374
Carriages and Carriage Parts, . . . . .	99	2,730
Cotton Goods, . . . . .	69	16,740
Clocks, Watches, and Toys, . . . . .	17	4,068
Corsets and Corset Materials, . . . . .	21	5,161
Cutlery and Tools, . . . . .	79	5,690
Electrical Goods, . . . . .	21	1,373
General Hardware, . . . . .	128	15,603
Hats and Hat Materials, . . . . .	77	7,788
Iron and Steel, . . . . .	257	16,523
Paper Mills, . . . . .	49	1,723
Paper Boxes, Bags, and Envelopes, . . . . .	46	2,388
Pianos and Organs, . . . . .	10	1,108
Printing and Bookbinding, . . . . .	94	1,496
Rubber Goods, . . . . .	21	6,112
Silk, Knit Goods, etc., . . . . .	90	13,726
Silverware, . . . . .	37	5,330
Stone Cutting and Quarrying, . . . . .	67	2,924
Wood Working, . . . . .	125	2,796
Woolen Goods, . . . . .	74	9,432
Miscellaneous, . . . . .	194	7,231
Total, . . . . .	1,801	153,269

## BUILDING TRADES, MUNICIPAL LABORERS, ETC.

Statistics in reference to the hours of labor and rate of wages in the building trades are also given. It was not possible to incorporate them in the main tables, consequently they are presented separately. It was deemed best in connection with the inquiry, to show the extent of organization in these various trades and the effect of the unions in securing the nine hour day for which they

have been contending recently. The investigation was not extended to towns of less than 5,000 people, as its object would not have been aided by so doing.

Similar facts are given relative to municipal laborers, many of whom have also secured shorter hours within a few years, bakers and street railroad employes.

#### THE CIGAR MAKING INDUSTRY.

The investigation concerning the manufacture of cigars, was instituted in order to secure information relative to the practical results of a radical reduction in working hours. The workmen in this industry are practically the only class of employes in Connecticut with whom the eight hour day is an established fact. Consequently the comparison of their condition and wage-earning capacity now, with what it was under the old system, furnishes a text for interesting deductions. Correct returns were difficult to secure, but their general tenor leads to the conclusion that cigar makers are earning as much now, if not more, than they were when the hours of labor were longer. It should be remembered, however, that since the establishment of the eight hour system, the price paid per thousand cigars has been increased.

#### OTHER TOPICS TOUCHED.

The accompanying report contains some conclusions, as well as opinions from various sources, relative to the important subject of child labor and the advisability of increasing the age limit from thirteen to fourteen years. The sentiment in favor of an increase cannot be ignored, and the subject should have the attention of all who are interested in the physical and material well-being of their fellows.

The action of the last General Assembly on the various labor bills introduced is given in such a way as to answer all questions relative to the legislative history of these measures, whether they became laws or not.

In addition, much interesting information pertaining to the wages on the farm, compiled from the report of the statistician of the agricultural department in Washington, accompanies the report. The conclusions of the census office relative to mortgage indebtedness and interest charges have also been re-arranged and put in a form that will convey to the people of Connecticut considerable light on a subject in which many of them are much concerned.





## HOURS OF LABOR.



## HOURS OF LABOR.

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The movement in favor of a shorter working day began in the United States in 1832, when a meeting was held in New York to consider whether it was desirable to reduce the hours of labor. Two years later a trades procession in the same city carried banners with the inscription "Ten hours a day." President Van Buren in 1840 introduced the ten hour system into "all public establishments," and this action was followed by many private establishments. An agitation for the reduction of factory hours, carried on in Massachusetts from 1845 to 1852, led finally to the concession of two hours per week, making the working time sixty-six instead of sixty-eight hours. The question was next taken up in 1868 by the National Labor Union, but that organization became extinct in 1870, and it was not until the agitation of a few years later that the movement for shorter hours made a pronounced headway.

### THE LAW IN CONNECTICUT.

The effect of general economic progress, of the force of public opinion, and of the efforts of labor organizations in the reduction of the hours of factory labor was supplemented and enforced in Connecticut by the legislation of 1887. The law then enacted limited the hours of employment of women and minors to ten daily, or sixty a week. As it was not convenient or economical in industries in which women and minors are most largely employed to work part of a mill force ten hours and the remaining part for a longer daily period, the effect (presumably anticipated) of the law was to make ten hours daily, or sixty hours weekly, the working time for all, with a few minor exceptions.

### REDUCTION BETWEEN 1860 AND 1880.

Between 1860 and 1880 there was a marked improvement in the direction of fewer hours of daily labor in Connecticut factories, but

the improvement was more pronounced between 1880 and 1892, during which period the legislation of 1887 took effect. A reference to Table III shows that the percentage of factories in which the daily working hours were over ten fell from 20.39 in 1860 to 17.19 in 1880; while the percentage of factories in which the daily hours were ten or less rose in the same period from 79.61 to 82.81. The returns for 1860 and 1880 only include establishments existing at the time of the present inquiry. Fuller returns for 1860 would probably result in a wider variance of the percentages for that year as compared with 1880, particularly as the difficulty of obtaining figures for the earlier period was more marked in sections of the State where a long working day was the rule.

#### WHERE THE REDUCTION WAS MOST MARKED.

Omitting Windham county, the returns from which for 1860 do not warrant deductions, the most pronounced improvement in the twenty years between 1860 and 1880 was in the counties of Middlesex, Litchfield, Tolland, and Hartford. The counties named had in 1860 the lowest percentages of short-day establishments, with the exception of New London county, where the percentage, low in 1860, remained low in 1880. The last characteristic is true also of Tolland county, where the tendency was to a long day, but where the majority of establishments dropped from over eleven hours in 1860 to over ten in 1880. In New London county, also, there was a noticeable change from over eleven in 1860 to over ten in 1880.

The percentage of establishments working ten hours or less daily was largest in New Haven county in 1860—94.44—Fairfield ranking next with 87.27 per cent; then Hartford with 75.93 and Litchfield with 71.05. In that year the per cent. in Tolland county was 25.00, in New London 57.14, and in Middlesex 58.06. New Haven county retained the first place in 1880 with a percentage of 95.42, Fairfield being again second with 93.23, these two counties far outranking the others, Hartford having 83.60, Middlesex 79.71, Litchfield 71.05, New London 60.00, Tolland 34.48, and Windham 10.81.

#### REDUCED HOURS BY INDUSTRIES, 1860 TO 1880.

In 1860 (Table V) all establishments reporting in breweries and distilleries, brick, cotton and woolen goods worked over ten hours per day; in 1880 60.00 per cent. of the breweries, 24.00 per cent. of the brick yards, 9.43 of the cotton mills, and 26.92 of the woolen

mills worked ten hours or less daily. There was a change in brass from 95.83 per cent in 1860 to 100 per cent. in 1880; in iron and steel from 83.33 to 92.86; in paper mills from 12.50 to 23.08; in paper boxes, bags, and envelopes from 66.67 to 96.00; in silk, knit goods, etc., from 61.90 to 71.70; in stone cutting and quarrying from 66.67 to 100, and in miscellaneous industries from 77.78 to 95.00.

The change in brass was in Litchfield county (Table IV) from 66.67 per cent. in 1860 to 100 per cent. in 1880; in cotton in Fairfield county from no per cent to 50.00, in Litchfield county from no per cent. to 33.33, and in New London county from no per cent. to 18.75, Windham, Middlesex, and Tolland counties reporting no change from the rule of over ten hours daily; in iron and steel in New London county from 50.00 to 83.33; in paper mills and in silk and knit goods in Hartford and New Haven counties; in stone cutting in Middlesex; in wool in Litchfield county, where all the establishments had adopted the ten-hour day; in Fairfield county, where one-half of the mills had reduced to ten hours; in Hartford county from no per cent. to 42.86, and in New London county from no per cent. to 38.46; in miscellaneous industries in Middlesex county from 33.33 to 83.33; in Hartford county from 66.67 to 100, and in Fairfield county from 75.00 to 100.

#### IN SAME ESTABLISHMENTS.

Tables IV and V present the percentages of all the establishments reporting for the different periods. It would naturally be supposed that were consideration confined to the same establishments reporting for 1860 and 1880, the per cent. of establishments working the shorter day in 1880 would be less than where all establishments reporting are considered, the establishments founded during the period being expected to favor the shorter day. The contrary is the fact, the per cent. of all establishments reported working ten hours or less daily in 1880 being 82.81, while the per cent. of the same establishments reported for 1860 and 1880, having the shorter day in the latter year was 84.19 (Table VII).

The notable changes in the same establishments reporting for 1860 and 1880 were in brass from 95.83 per cent., ten hours, to 100 per cent.; in breweries and distilleries from no per cent. to 33.33; in iron and steel from 83.33 to 88.10; in silk, knit goods, etc., from 66.67 to 71.43; in stone cutting from 66.67 to 100; in woolen goods from no per cent. to 16.67; and in miscellaneous industries from



77.78 to 96.30. There was no change in arms and ammunition, paper mills, paper boxes, bags and envelopes. In boots, shoes and leather goods, carriages, clocks, corsets, cutlery, hardware, pianos, printing, rubber, silverware and wood-working, all the establishments worked ten hours daily or less at both periods. All the brick yards and cotton mills worked over ten hours daily at both periods.

As the percentages show, about four-fifths of the establishments reporting for 1860 were at that period running on the ten hour plan. The large majority of these shorter day establishments were in the cities and in industries other than textile. Among the textiles, the advance to the ten hour day was first observed in silk, knit goods, etc. A New Britain knitting company claims the credit of having been the first in that line of industry to adopt the ten hour day, which it did in 1856 or 1857.

#### LONG WORK DAYS IN 1860.

Some examples of the extra long work day in 1860 are as follows: A quarry in Middlesex county where the working time was from sunrise to sunset; a cotton mill in Fairfield county which confined its employes eighty-four hours weekly; three textile mills in Middlesex and one textile mill in Hartford county which were in operation seventy-eight hours per week; a textile mill in Hartford county and a distillery in the same county which required from seventy-two to seventy-eight hours of service per week; and textile mills in Tolland, Hartford, Fairfield and New London counties, a brewery in New Haven county and a chemical factory in Bridgeport where the daily hours of labor were twelve. Eleven or eleven and one-half hours per day were very common in Connecticut factories in 1860, about one-quarter of the establishments reporting having the long day.

There are two notable exceptions in 1860—one a varnish factory in New Haven county working nine hours daily, and the other a shirt factory in Fairfield county where the daily hours were nine and one-half.

#### LONG WORK DAYS IN 1880.

Even for 1880 some exceptionally long days were reported. A brewery in New Haven county gave ninety-eight hours per week as the working time, and a hat factory in Fairfield county eighty hours weekly. Twelve hours per day remained the requirement in some textile mills in Middlesex and Tolland counties, in some iron mills

in Litchfield county, in breweries in New Haven and Fairfield counties, and in a shoe shop in Fairfield county. A cotton mill in Fairfield county was running seventy and one-half hours weekly, some textile mills in Hartford, Fairfield and Tolland counties were working sixty-six hours weekly, while the running time in nearly all the factories in Windham county was from sixty-six to sixty-nine hours per week. Brick yards, where the hours are long and irregular, and paper mills in which two sets of men work from eleven to twelve hours daily are not considered in this connection.

One printing establishment in Hartford county reported eight and one-half hours daily for 1880, and a hardware factory in Hartford county and a shirt factory in Fairfield county each nine and one-half hours daily at the same period; while nine hours daily was the rule in one engraving establishment in Hartford county, and one in New Haven county, in a printing establishment and a brass factory in each of those counties, in an iron-working shop in Hartford county, in two varnish manufactories in New Haven county, and in a corset shop, a broom manufactory and a hat shop in Fairfield county.

#### PRESENT CONDITIONS COMPARED WITH THOSE IN 1885.

Coming now to the period between 1880 and 1892, the tables need a word of explanation. The figures showing the number of establishments and of employes working over ten hours daily in 1892 indicate in only a small minority of the cases a working time of over sixty hours a week. In many establishments, mainly in the textile industries, advantage was taken of the clause of the ten hour law which permits of longer hours on five days of a week in order to allow of a shorter day on the sixth, providing the total for the week be not over sixty. Of the 1,801 establishments reporting for 1892 and employing 153,269 persons, only seventy-nine establishments, having 2,535 employes, ran over sixty hours a week. This was only 4.39 per cent. of the establishments and only 1.65 per cent. of the employes. It was a very radical change as compared with 1885, when, according to the report issued by this Bureau in 1886, 15.26 per cent. of the establishments and 16.2 per cent. of the employes were working over sixty hours per week. There would be even a greater difference in the percentages, if the present inquiry embraced the building trades and distributive industry which figured in the inquiry of 1886. In 1885 more than half of all the

employees reported in the three eastern counties of the State were employed over sixty hours weekly. In 1892 less than two per cent. were so employed.

#### NO VIOLATION OF THE LAW.

Twenty-eight of the seventy-nine establishments reported as running over sixty hours weekly in 1892 are brick-yards, in which long and irregular hours are the rule for a portion of the year; thirty-five are paper mills, in the majority of which the machinery is run day and night with two sets of men, the women and minors being employed in the sorting room, and working not over sixty hours a week; four of the seventy-nine are pig iron furnaces and two are lime-kilns, in each of which the nature of the industry requires long hours. Only two woolen mills and one cotton mill are reported as working over sixty hours weekly in 1892, as compared with 52.13 per cent. of all the textile establishments in 1885. In each of these three mills the women and minors are reported as not working over sixty hours. One of the woolen mills makes the weekly hours for women and children fifty-seven and one-half, while the cotton mill, running sixty-three hours a week, permits the women to leave the shop earlier than the men, that they may have an opportunity to prepare the meals. No positive instance of a violation in the factories of the sixty hour law regarding the employment of women and minors was reported by the agents of the Bureau.

#### REDUCTION BETWEEN 1880 AND 1892.

Classifying all establishments which run over ten hours for five days, although not over sixty hours per week, as working over ten hours daily, the tables yet show a very gratifying advance toward the shorter working day between 1880 and 1892. Stated in percentages, the advance for the State (Table III) in establishments working ten hours or less daily, was from 82.81 in 1880 to 87.17 in 1892. The advance was most marked in New London county, from 70.31 in 1880 to 87.27 in 1892; and in Middlesex county, from 79.71 to 89.52. The improvement was not so noticeable in the other counties—Hartford, New Haven, Fairfield and Litchfield counties having already a commanding position in 1880, and Windham only advancing from 10.81 in 1880 to 17.11 in 1892, and Tolland from 34.48 to 42.37. The system of long hours for five days with a shorter day Saturday is practically the rule now in Windham county.

It is also largely prevalent in Tolland county and to a lesser degree in New London and Middlesex counties.

#### AS SEEN IN INDUSTRIES.

The notable changes as seen in the classification by industries (Table V), were in breweries and distilleries from 60.00 per cent. of establishments working ten hours or less daily in 1880 to 94.12 per cent. in 1892; in woolen mills from 26.92 to 45.95; in cotton mills from 9.43 to 28.99; and in brickyards from 24.00 to 37.78. In paper boxes, bags, and envelopes, in silk, knit goods, etc., and in miscellaneous industries there was a decreased percentage in 1892 as compared with 1880. The explanation of this is in the adoption, after the legislation of 1887, of the system of over ten hours for five days and less than ten on the sixth day. For instance, in silk, knit goods, etc., in Middlesex county, where all the establishments reporting for 1880 were not working over ten hours daily, half of the establishments were run over ten hours daily on five days in the week in 1892; and in Tolland county between the same periods the percentage of ten hour silk or knit goods mills dropped from 40.00 to 18.18.

The exceptional changes in industries by counties (Table IV) were in arms and ammunition in Hartford county from 66.67 per cent. ten hours or less in 1880 to 100 per cent. in 1892; in boots, shoes, and leather goods in Windham county from no per cent. to 42.86; in brick yards in Hartford county from 20.00 to 37.93, and in New Haven county from no per cent. to 11.11; in cotton mills in New London county from 18.75 to 36.84, in Fairfield county from 50.00 to 100, in Litchfield county from 33.33 to 100; in Middlesex county from no per cent. to 50.00, and in Tolland county from no per cent. to 16.67; in iron and steel in New London county from 83.33 to 87.50, and in Litchfield county from 36.37 to 68.75, with a retrogression in Windham county from 100 to 40.00; in silk, knit goods, etc., in New Haven county from 81.82 to 100, in New London county from 33.33 to 42.86, and in Fairfield county from 90.91 to 100; in woolen mills in Hartford county from 42.86 to 100, in New Haven county from no per cent. to 100, in New London county from 38.46 to 56.25, and in Tolland county from 7.69 to 29.17; and in miscellaneous industries in Litchfield county from 50.00 to 75.00, and in Middlesex county from 83.33 to 95.45, with a backward movement in Tolland county from 100 to 50.00.

## IN SAME ESTABLISHMENTS.

Turning again to Tables VIII and IX, which give same establishments reporting for 1880 and 1892, with percentages of same, it is seen that of 954 establishments reporting, 33 changed during the twelve years from over ten hours daily to ten or less. Twelve of the thirty-three were cotton mills and twelve were woolen mills. Told in percentages the advance toward the ten-hour day in these 954 establishments between 1880 and 1892 was from 82.81 per cent. to 86 27. The exceptional advances were in breweries and distilleries, from 60.00 per cent. in 1880 to 90.00 in 1892; in cotton from 9.43 to 32.08, and in wool from 26.92 to 50.00. There were no changes in paper mills, paper boxes, bags or envelopes, or silk, knit goods, etc., and only minor changes in boots and shoes, brick yards, and hat shops.

## EXCEPTIONS TO THE RULE.

As told before, the almost universal rule in the State in 1892, outside of the cigar industry and the building trades, was that sixty hours constituted a week's work. The exceptions were of over sixty hours in paper mills, brick yards and iron furnaces, and of under sixty hours in stone yards and wood-working establishments (which are akin to the building trades), and, to a much less degree, in the other industries, though instances of less than ten hours daily are found in nearly all industries, the conspicuous exceptions being cotton mills and woolen mills. In the State the establishments and employes were thus divided in 1892 as to daily working hours:

	Establishments.	Employes.
Under ten hours, . . . . .	147	6,611
Ten hours, . . . . .	1,423	118,593
Over ten to eleven, . . . . .	184	26,327
Over eleven to twelve, . . . . .	47	1,738

## UNDER TEN HOURS DAILY.

Of the 147 establishments working under ten hours daily, thirty-seven were quarries or stone yards, employing 1,636 people; twenty-eight were wood-working shops, employing 426 people; nineteen were miscellaneous industries, employing 303 people; twelve were



iron-working shops, employing 204 people ; ten were printing offices, employing eighty-one people ; eight were hardware shops, employing 719 people ; six were hat shops, employing 565 ; six were silk or knit goods mills, employing 425, and one a clock shop, employing 600. In many of the stone-cutting establishments the hours are nine for five days and eight on Saturday, making a total for the week of fifty-three. In 1892 more than one-half of the stone-cutting establishments in the State, and more than one-half of the employes in that industry were working less than ten hours per day.

The number of establishments in the State reported as working less than ten hours daily ( Table II ) rose from three in 1860 to sixteen in 1880, and to 147 in 1892 ; or ( Table III ) from .97 of 1 per cent. in 1860 to 1.68 per cent. in 1880 and to 8.16 per cent. in 1892. Of the three reported for 1860 two were in New Haven county and one in Fairfield county. Windham county reported none in either year, Litchfield one ( a stone yard ) in 1892, and Tolland two in 1892, both paper box shops. New Haven and Hartford counties each reported six in 1880 and Fairfield county four. In 1892 there were fifty-eight so reporting in New Haven county, thirty-three in Fairfield county, twenty-seven in Hartford county, eighteen in Middlesex county and eight in New London county. Represented by percentages, the establishments in Middlesex county in 1892 running less than ten hours daily were 13.71 per cent. of the whole number ; in New Haven county 10.82, in Fairfield county 8.07, in Hartford county 7.53, in New London county 6.25, in Tolland county 3.39, and in Litchfield county 1.03. The relatively high per cent. in Middlesex county is due to the large proportion of stone cutting establishments in that county.

#### UNDER TEN HOURS BY INDUSTRIES.

In the classification by industries ( Table V ), stone-cutting of course heads the list in the percentage of establishments working less than ten hours daily in 1892, the percentage in that industry being 55.22. This is followed at a distance by a percentage of 22.40 in wood-working, of 10.64 in printing, of 9.79 in miscellaneous industries, 9.52 in corset shops, 7.79 in hat shops, 6.67 in silk, knit goods, etc., 6.52 in paper box shops, 6.25 in hardware establishments, 5.89 in clock shops, 5.41 in silverware and plating, 5.06 in cutlery and tools, 4.76 each in rubber and electrical supplies, and 4.67 in iron. Of the same establishments reporting for 1880 and 1892, forty-seven changed from ten or over daily in 1880 to under

ten in 1892, fifteen of these being stone-cutting establishments, ten wood-working shops, six hardware manufactories and five iron-working shops.

Where the hours are less than ten daily they are, as a rule, nine. There are some exceptions, however, of nine and a half; four (three hat shops in Fairfield county and a wheel shop in New Haven county) of eight; one (a printing office in Hartford county) of eight and a half; one (also a printing office in Hartford county) of seven and a half; and one (a printing office in Fairfield county) of six.

#### REDUCED HOURS AND PRODUCTION.

As to the effect of reducing the working time to nine hours daily no inquiry was made, but several employers stated voluntarily to agents of the Bureau that their experience proved to them that production was as large in nine hours as it had been in ten.

#### OVER TEN HOURS DAILY.

A statement of the relative increase in the number of establishments working ten hours or less daily, of course carries with it a statement of the relative decrease in the number of establishments working over ten hours daily. But more positive figures on that phase of the subject have an interest. By Table III it is shown that the percentage of establishments in the State running over ten hours daily fell from 20.39 in 1860 to 17.19 in 1880, and to 12.81 in 1892. Long-day establishments in this table are divided into those working over ten to eleven hours daily, and those working over eleven to twelve. There was a constant fall in the percentage of the latter from 12.62 in 1860 to 5.24 in 1880, and to 2.61 in 1892. But the per cent. of establishments working over ten to eleven hours daily rose from 7.77 in 1860 to 11.95 in 1880, and then fell to 10.22 in 1892. The decrease in the over eleven hours establishments between 1860 and 1880 was absorbed in the over ten, while the high per cent. of over ten remaining in 1892 is due to the adoption of the system of over ten hours for five days, with fewer hours on the sixth day.

#### WHERE LONG DAYS WERE FOUND.

In Tolland county the per cent. of establishments working over eleven hours daily dropped from 50.00 in 1860 to 10.35 in 1880, and to 1.79 in 1892; while the per cent. of establishments running over ten

hours daily rose steadily from 25.00 in 1860 to 55.17 in 1880, and to 55.93 in 1892. Windham county had the highest per cent. of long-day establishments, its over eleven hours establishments being 18.92 per cent. of the whole in 1880 and 5.26 per cent. in 1892, while its over ten hours factories were 70.27 per cent. of the whole number in 1880, and 77.63 per cent., or more than three-fourths, in 1892. New London county had also a large number of long-day establishments, starting with a percentage of over eleven hours shops in 1860 of 21.43, which fell to 5.71 in 1880, and to 3.13 in 1892. Its per cent. of over ten hours establishments was 21.43 in 1860, 34.29 in 1880, and 26.56 in 1892. New Haven county, in 1892, had the lowest per cent. of long-day establishments, followed by Fairfield, Middlesex, Litchfield, and Hartford counties, in the order named.

#### INDUSTRIES WITH LONG WORKING DAY.

In brick yards, cotton mills, and woolen mills (Tables IV and V) all the establishments reporting for 1860 ran over ten hours daily. The per cent. of woolen mills so running fell to 73.08 in 1880, and to 54.05 in 1892; of cotton mills to 90.57 in 1880, and to 71.01 in 1892; and of brick yards to 76.00 in 1880, and to 62.22 in 1892. Other industries in which there was a notable decrease in the per cent. of long-day establishments were iron and steel from 16.67 in 1860 to 7.14 in 1880, and to 5.84 in 1892; and in paper mills from 87.50 in 1860 to 76.92 in 1880, and to 75.51 in 1892. In silk, knit goods, etc., the per cent. fell from 38.10 in 1860 to 28.30 in 1880, and then, through the adoption of the long-five-day system, it rose to 32.22.

Of the 310 establishments reporting for the three periods (Table VI) thirteen changed from over ten to ten between 1860 and 1880, and twenty-three more between 1880 and 1892, the change being mainly in the cotton, wool, and iron industries; and of the 954 establishments reporting for 1880 and 1892 (Table VIII) thirty-three changed from the long to the shorter day during the period, twenty-six of the number being cotton and woolen mills. The facts just stated are presented more graphically in the following table, which does not include brick yards, paper mills, or pig-iron furnaces :

SAME ESTABLISHMENTS REPORTED THAT CHANGED FROM  
LONG HOURS IN 1860 AND 1880 TO SIXTY A  
WEEK AND UNDER IN 1892.

COUNTIES.	1860. WEEKLY HOURS OF LABOR.		1880. WEEKLY HOURS OF LABOR.				1892. WEEKLY HOURS OF LABOR.	
	Over 70.	Over 60 to 70.	Over 70.	Over 65 to 70.	Over 60.	60	60	Under 60.
Hartford, . . .	6	3	....	6	1	4	10	1
New Haven, . .	1	3	3	4	....	....	7	....
New London, . .	2	1	....	19	....	....	19	....
Fairfield, . . .	4	3	4	3	2	2	10	1
Windham, . . .	....	....	....	27	2	....	29	....
Litchfield, . .	2	6	....	3	3	3	6	3
Middlesex, . . .	5	1	2	9	....	2	11	2
Tolland, . . . .	4	1	2	13	1	....	16	....
The State, . . .	24	18	11	84	9	11	108	7

The most interesting presentation of conditions as to working hours in the factories of the State in 1892 is contained in the following tables, giving the number of employes working at different daily hours, and also the per cent. of each subdivision to the total:

HOURS OF LABOR BY EMPLOYES IN 1892.

COUNTIES.	Under 10 hours.	10 hours.	Over 10 to 11.	Over 11 to 12.	SHORT DAY SATURDAY.	
					To make 60 hours a week.	Less than 60 hours a week.
Hartford, . . .	492	24,592	*2,753	937	2,420	6,458
New Haven, . . .	2,104	46,191	89	432	.....	24,601
New London, . . .	458	6,256	6,241	112	6,205	928
Fairfield, . . .	2,967	27,033	1,148	66	567	16,918
Windham, . . . .	.....	190	11,124	40	11,124	25
Litchfield, . . .	80	7,494	295	128	295	1,515
Middlesex, . . .	469	5,464	564	12	473	1,766
Tolland, . . . .	41	1,373	4,113	11	3,883	36
The State, . . .	6,611	118,593	26,327	1,738	24,967	52,247

\*1,600 in Thompsonville.

## HOURS OF LABOR, 1892, IN PERCENTAGES OF EMPLOYES.

COUNTIES.	Under 10 hours.	10 hours.	Over 10 to 11.	Over 11 to 12.	SHORT DAY SATURDAY.	
					To make 60 hours a week.	Less than 60 hours a week.
Hartford, . . .	1.71	85.46	9.57	3.26	8.41	22.44
New Haven, . . .	4.31	94.62	.18	.89	.....	50.40
New London, . . .	3.50	47.88	47.76	.86	47.49	7.10
Fairfield, . . .	9.50	86.61	3.68	.21	1.82	54.20
Windham, . . .	.....	1.67	97.98	.35	97.98	.22
Litchfield, . . .	1.00	93.71	3.69	1.60	3.69	18.94
Middlesex, . . .	7.21	83.95	8.66	.18	7.27	27.13
Tolland, . . .	.74	24.79	74.27	.20	70.12	.65
The State, . . .	4.31	77.38	17.18	1.13	16.29	34.09

## OVER TEN DAILY, THOUGH SIXTY PER WEEK.

As has been stated, the system of over ten hours on five days of the week, with fewer hours on Saturday, making a total of sixty hours for the week, is mainly confined to the three eastern counties of the State and to the textile industries. It is predominant in the comparatively small towns of Windham county, but it is also found in the cities in the eastern part of the State, as appears from this tabular presentation:

## OVER TEN HOURS DAILY, WITH SHORT DAY SATURDAY, MAKING SIXTY HOURS A WEEK.

	Establish- ments.	Per cent. of total Establish- ments.	Employees.	Per cent. of total Employees.
Norwich, . . . .	10	25.00	3,253	60.18
Rockville, . . . .	10	52.63	2,020	68.06
New London, . . . .	6	22.22	1,073	62.86
Windham county, . .	59	77.63	11,124	97.97

In Windham county where, in 1892, about 98 per cent. of all the people employed in factories were working more than ten hours daily for five days, with a short Saturday, the per cent. of establish-



ments so conducted as reported in 1880 was only 8.11. The system seems to have originated in Tolland county where the per cent. of establishments so conducted was 12.50 in 1860, 6.90 in 1880 and 52.54 in 1892. It appeared in New London, Hartford and Middlesex counties in 1880, rising in the first named county from 10.00 to 25.00 per cent. between 1880 and 1892, in Hartford county from .53 of 1 per cent. to 2.42, and in Middlesex county from 1.45 to 6.45. It is unknown in New Haven county, but appeared in 1892 in Litchfield county with a per cent. of 2.06, and in Fairfield county in the same year, with the low figure of .49 of 1 per cent. In the whole State the per cent. rose from .32 of 1 per cent. in 1860 to 1.47 in 1880 and to 7.94 in 1892.

#### MAINLY IN TEXTILE INDUSTRIES

Of the 954 same establishments reporting for 1880 and 1892, thirty-eight changed during the period to the long five day system, thirty-three of the number being textile industries. In 1892 the total number of establishments working over ten hours five days and fewer hours on Saturday was 143, of which number 112 were textile industries. Of the cotton mills in the State 68.12 per cent., and of cotton mill employes 77.28 per cent. were under that system; of woolen mills 48.65 per cent. and of woolen mill employes 55.76 per cent.; of silk and knit goods mills 32.22 per cent. and of employes in such mills 39.03 per cent. Told in another way over three-fourths of the employes in cotton mills, over one-half of those in woolen mills and about two-fifths of those in silk and knit goods mills were working over ten hours daily for five days with a shorter day on Saturday.

#### VIEWS OF EMPLOYERS AND EMPLOYEES.

To some of the employes the system is distasteful because of the strain of long hours on five days of the week, while others of the employes prefer it, as thereby their leisure time can be made of more advantage to them. From the employers' standpoint the argument is that when steam is up and machinery is running smoothly it is more economical to keep it moving, and that therefore a long day is more proportionately profitable than a short day.

#### PECULIAR DAILY SCHEDULES.

The arrangement of daily hours under this system is peculiar. Toil is begun variously at fractions of the hour between 6 and 7 a.

m. and is continued to fractions of the hour between 5 and 6 p. m., occasionally overlapping 6 o'clock, with an intermission of from forty minutes to an hour for dinner. Occasionally, as where a number of mills get power from one stream, the hours will be uniform for that section. A good illustration of the division of working hours under this system is what is known as the Rockville schedule, which is here presented in the language of the notice posted in the shops :

### SUMMER TIME TABLE.

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FROM FIRST MONDAY IN APRIL TO FIRST MONDAY IN  
OCTOBER.

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Monday, Tuesday, Wednesday, Thursday, and Friday,

From 6.30 a. m. till 12 noon,

and From 12.50 p. m. till 6.15 p. m.

Saturday, from 6.30 a. m. till 11.55 a. m.

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### WINTER TIME TABLE.

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FROM FIRST MONDAY IN OCTOBER TO FIRST MONDAY  
IN APRIL.

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Monday, Tuesday, Wednesday, Thursday, and Friday,

From 6.45 a. m. till 12 noon,

and From 1 p. m. till 6 p. m.

Saturday, from 6.45 a. m. till 12 noon, and from

1 p. m. till 4.30 p. m.

MAKING SIXTY HOURS PER WEEK.

Some establishments adopt the long-five-day system during the summer months, so that thereby the employes may earn a half-holiday on Saturday. This arrangement is especially conspicuous in

Winsted factories. In a machine shop in Stonington, where the religious sect known as the Seventh Day Baptists has numerous adherents, the employes work over ten hours on Sunday, Monday, Tuesday, Wednesday, and Thursday, and shorter hours on Friday, observing Saturday as a day of rest and worship, instead of Sunday.

The daily running time for five days, under this system, varies from ten hours and ten minutes to eleven hours, and on the sixth day from nine hours and ten minutes to five hours. Examples of these exceptional hours of labor have been grouped in the following table :

## EXCEPTIONAL HOURS OF LABOR.

INDUSTRY.	COUNTY.	No. of Estab- lish- ments.	Daily Hours for 5 Days.	Hours on Satur- day.	Hours Weekly.
			H. M.	H. M.	H. M.
Boots, Shoes, and Leather Goods, .	Windham, . .	2	10 15	8 45	60
	Windham, . .	1	10 45	6 15	60
	Windham, . .	1*	10 45	7 30	61 15
Brick, . . . .	Hartford, . .	1	11	10	65
Carriages and Car- riage Parts, . .	Windham, . .	1	10 30	7 30	60
	Windham, . .	1	10 15	8 45	60
Cotton Goods, . .	New London, .	1	10 30	7 30	60
	Windham, . .	7			
	Middlesex, . .	5			
	Hartford, . .	1	10 45	6 15	60
	New London, .	4†			
	Windham, . .	14			
	Tolland, . . .	2	10 53	5 35	60
	New London, .	1†			
	Windham, . .	2			
	Tolland, . . .	1‡	11	5	60
	New London, .	6§			
	Tolland, . . .	2			
	Windham, . .	1	11 45	7 15	66
Cutlery and Tools, .	New London, .	1	10 15	8 45	60
	Windham, . .	1	10 30	7 30	60
General Hardware, .	Fairfield, . .	1	11	9	64
Iron and Steel, . .	Hartford, . .	1	10 10	9 10	60
	New London, .	1			
	Hartford, . .	1	10 15	8 45	60
	New London, .	1	10 30	7 30	60

\*In winter 10 hours five days,  $8\frac{3}{4}$  Saturday, a total for the week of  $58\frac{3}{4}$ .

†In winter in one establishment  $10\frac{1}{2}$  hours five days,  $7\frac{1}{2}$  Saturday.

‡In winter  $10\frac{1}{4}$  hours five days,  $8\frac{3}{4}$  Saturday.

§In winter in three of these establishments  $10\frac{1}{4}$  hours five days,  $8\frac{3}{4}$  Saturday.

||Women work 60 hours per week.

## EXCEPTIONAL HOURS OF LABOR.—CONTINUED.

INDUSTRY.	COUNTY.	No. of Estab- lish- ments.	Daily Hours for 5 Days.	Hours on Satur- day.	Hours Weekly.
			H. M.	H. M.	H. M.
Iron and Steel, . (Concluded.)	Fairfield, . .	1	10 30	7 30	60
	Windham, . .	2			
	Middlesex, . .	1	10 45	6 15	60
	New London, .	1			
	Windham, . .	1			
Paper Mills, . .	Fairfield, . .	1	11	10	65
	Fairfield, . .	1	12	11	71
Paper Boxes, Bags, and Envelopes, .	New London, .	1	10 15	8 45	60
	Windham, . .	1			
	New London, .	1	10 45	6 15	60
	Windham, . .	1			
	Tolland, . . .	1*	10 55	5 25	60
Printing and Book- binding, . . . .	Fairfield, . .	1	10 15	8 30	59 45
	Hartford, . .	1	10 15	8 45	60
Silk, Knit Goods, Etc.	New London, .	1			
	Litchfield, . .	2			
	Middlesex, . .	1†			
	Hartford, . .	3	10 30	7 30	60
	New London, .	2			
	Windham, . .	1†			
	Tolland, . . .	2	10 45	6 15	60
	Hartford, . .	2			
	Windham, . .	5			
	Tolland, . . .	2	10 55	5 25	60
	New London, .	1			
	Tolland, . . .	2‡			
	Windham, . .	1	11	5	60
	Tolland, . . .	3			

\*In winter 10¼ hours five days, 8¾ Saturday.

†In summer 11 hours five days, 5 Saturday.

‡In winter in one of these establishments 10¼ hours five days, 8¾ Saturday.



## EXCEPTIONAL HOURS OF LABOR.—CONCLUDED.

INDUSTRY.	COUNTY.	No. of Estab- lish- ments.	Daily Hours for 5 Days.	Hours on Satur- day.	Hours Weekly.
			H. M.	H. M.	H. M.
Wood Working,	Windham, . .	1	10 15	8 45	60
	New London, .	1	10 30	7 30	60
	Windham, . .	1	10 45	6 15	60
Woolen Goods, . .	Middlesex, . .	1	10 15	8 45	60
	Tolland, . . .	6			
	Fairfield, . .	2*	10 20	8 20	60
	New London, .	4	10 30	7 30	60
	Windham, . . .	6			
	Tolland, . . .	1			
	New London, .	1	10 35	7 05	60
	Fairfield, . .	1	10 45	5 15	59
	New London, .	2	10 45	6 15	60
	Windham, . . .	5			
Miscellaneous, . .	Tolland, . . .	1			
	Tolland, . . .	6†	10 55	5 25	60
	Tolland, . . .	1	11	5	60
	Tolland, . . .	2‡	11 15	9 15	65 30
	New London, .	1	10 15	8 45	60
	Windham, . . .	1			
	Windham, . . .	2	10 30	7 30	60
	New London, .	1	10 45	6 15	60
	Windham, . . .	1			
	Tolland, . . .	1§	10 55	5 25	60

\*In summer in one of these establishments 10 hours and 50 minutes five days, 5 hours and 40 minutes on Saturday, a total for the week of 59 hours and 50 minutes.

†In winter in four of these establishments, 10¼ hours five days, 8¾ Saturday.

‡The women and children in these establishments work 9¾ hours five days and 8¾ Saturday, a total for the week of 57½.

§In winter 10¼ hours five days, 8¾ Saturday.

## SHORT SATURDAY AND UNDER SIXTY WEEKLY.

A shorter work day on Saturday, which is not earned by working extra time on other days of the week, is enjoyed quite extensively in the State. It is more prevalent in the larger cities and towns than elsewhere, but it is found in a greater or lesser degree in about one-half of the towns which figure in the report. The number of establishments so running in the cities, with the number of employes thus favored, has been tabulated in this manner :

SHORT DAY SATURDAY, MAKING LESS THAN SIXTY  
HOURS A WEEK.

	Establish- ments.	Percentage of total Establish- ments.	Employees.	Percentage of total Employees.
New Haven, . . .	133	49.26	10,370	64.57
Bridgeport, . . .	132	79.52	10,046	73.82
Hartford, . . . .	64	43.84	4,853	59.44
Meriden, . . . .	37	61.67	4,458	57.01
Norwalk, . . . .	34	66.67	2,699	61.09
Waterbury, . . .	27	37.50	3,811	36.52
Stamford, . . . .	24	72.73	1,909	92.09
Danbury, . . . .	17	25.76	203	4.10
Norwich, . . . .	11	27.50	537	9.94
Middletown, . . .	8	20.51	876	31.06
Ansonia, . . . .	5	29.41	1,818	55.09
New Britain, . . .	2	5.00	153	2.38
Rockville (Vernon), .	1	5.26	15	.51

The weekly hours of labor under this system are generally fifty-nine (ten hours on five days and nine on Saturday), with occasional exceptions of fifty-eight or fifty-nine and one-half hours weekly, still rarer instances of fifty-five hours weekly, when a half holiday is permitted on Saturday, and quite frequently in stone yards fifty-three hours weekly—nine daily for five days and eight on Saturday.

## SIXTY HOURS' PAY FOR FIFTY-NINE HOURS' WORK.

Several establishments in Hartford, five in Danbury, four in Middletown, three in Cromwell, two in Torrington and one each in Stamford, Enfield and Tolland, are reported as giving their employes sixty hours' pay for fifty-nine hours' work. No questions were asked

on this point ; the information was given voluntarily, and it may be that other manufacturing concerns are entitled to the same credit.

#### WHERE THE SHORT SATURDAY IS IN FAVOR.

The short Saturday, making less than sixty hours a week, has grown rapidly in favor in the last thirty years. The percentage of all establishments reporting for 1860, which granted the short Saturday was 12.94. This per cent. had grown to 24.11 in 1880 and to 33.43 in 1892. Fairfield led in this particular, the per cent. in that county as far back as 1860 being 32.73—almost as high as the average for the State in 1892—which per cent. rose to 48.96 in 1880 and to 55.99 in 1892. This is much higher than the per cent. in any other county. New Haven county is next with a per cent. of 43.47 in 1892, an increase from 16.67 in 1860. No other county equals the State average, Hartford county being nearest with a per cent. of 24.19 in 1892, a gratifying advance from 1.85 in 1860. In Middlesex, Windham and Tolland counties in 1860, and in Windham and Tolland counties in 1880, no establishments were reported as conceding the short Saturday. The lowest percentages in 1892 were in New London county 10.94, in Tolland county 5.09 and in Windham county 1.32.

#### OVER ONE-THIRD AT FIFTY-NINE HOURS OR LESS.

The per cent. of employes in all the factories of the State enjoying the short Saturday in 1892 was 34.09. So that practically in 1892 more than one-third of the establishments in the State, employing more than one-third of the employes, were running fifty-nine hours or less per week. More than half of the corset shops, stone yards, arms and ammunition factories, electrical supply shops, printing shops and silverware factories gave the short Saturday, or less than sixty hours weekly; more than 40 per cent. of the brass mills, rubber shops, hardware factories, shoe shops and piano manufactories; more than 30 per cent. of the wood-working establishments, iron and steel-working shops, cutlery and tool manufactories and carriage shops; and more than 20 per cent. of the hat shops, paper box shops, silk and knit goods mills and miscellaneous industries.

More than three-quarters of the employes in arms and ammunition factories were enjoying the short Saturday; nearly three-quarters in the stone yards; over half the employes in corset shops, electrical supply shops, silverware factories, shoe shops,

brass mills and printing shops; more than 40 per cent. of the employes in carriage shops, hardware factories, iron and steel-working, wood-working and miscellaneous industries; and more than 30 per cent. in cutlery and tools, paper boxes and rubber goods. The only industry in which the unearned short Saturday does not figure, is cotton.

#### SATURDAY HALF HOLIDAY.

Some few establishments even permit a half holiday on Saturday, not earned by longer working time on other days of the week. The weekly hours in these establishments average fifty-five. This feature is quite recent and is confined almost exclusively to Hartford, New Haven and Bridgeport, though existing also in about a dozen of the hat factories in Danbury, Norwalk and Bethel. In addition, in two Norwalk shops all of Saturday is a holiday. The same is true of one Southington establishment during the summer months.

It is the testimony of a few Hartford manufacturers that the granting of a half holiday on Saturday, with full pay, does not decrease production, the employes reciprocating the favor by more concentrated effort during the rest of the week.

#### CONSIDERATION FOR WOMEN AND CHILDREN.

Greater consideration for the welfare of women and minor employes than is required by the law of 1887 is exhibited in many factories. Two establishments in Hartford and one each in Meriden, Bridgeport, Stamford and Danbury require a half hour less daily from women; eight in Bridgeport and one each in Hartford, Bristol, Plainville, Meriden, New Haven, Stamford, Westport and Bethel require one hour less daily, the Bethel shop also dismissing minors an hour earlier; one in Danbury asks one and one-half hours less daily from women, and one in Bethel has the same consideration for women and children; four in Danbury, two each in Westport and Brookfield, and one each in New Haven and Bethel employ women two hours less daily, the two establishments in Brookfield and two of the four in Danbury showing like consideration for minors; one in Danbury requires of women and minors two and a half hours less of labor daily; another in Danbury three hours less; and one in Bethel four hours less. In addition one Bridgeport establishment keeps minors employed two hours less daily, another one hour less, and a Stamford factory one and one-quarter hours less.

## METHODS OF PAYMENT.





## METHODS OF PAYMENT.

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An agitation for more frequent pay days among the factory employes of the State, of several years' duration, resulted in the passage of the Weekly Payment act by the General Assembly in 1887. Previous to that time there had been no statute on the subject, and the power of the General Assembly relative to such legislation was vigorously debated. Many held that it could not make an arbitrary law that incorporated concerns would be compelled to observe, but the question has never been taken to the courts and the result of the law is an almost universal observance of its provisions. In Illinois a recent decision of the Supreme court declares the weekly payment bill of that State to be unconstitutional, but the conditions are not similar to those that obtain in this State, and the judgment of the court there as the case was made up, is no criterion for an opinion in reference to our law.

The Connecticut statute applies only to corporations, but its results are not limited to establishments doing business under the Joint Stock act or a special charter. Many firms and individual employers began to pay weekly soon after the passage of this law and the number has steadily increased. Thus the statute, backed by public opinion, influenced many who were not liable to a penalty under it, and its collateral effects are as marked as those of the law prescribing sixty hours a week as the working limit for women and children. That the weekly payment act has been a success, despite the evasions of it that are reported, is patent to all, and that a movement to repeal it would meet with prompt and hearty public condemnation is a correct estimate of popular opinion. Some expressions of sentiment on this subject are given in another part of this book.

Certain it is that the growth of the weekly payment system has increased the purchasing power of wages. The credit or store book

system, was generally an adjunct of monthly payments, but purchasers for cash have largely supplanted the old custom and the result is a more satisfactory method of doing business for the merchant, while the purchaser with money secures concessions in prices that never would have been his under monthly payments and credit. Weekly payments have also in connection with the recent amendment of the foreign attachment law, which exempts \$50 from attachment, practically abolished the "factorizing" of wages and the complications that arose when monthly payments were the rule, credit was essential, and the law was relied on to enforce payment. Another very beneficial effect of paying wages weekly is the abolition of the practice of charging a commission for advances between monthly pay days. Five per cent. and in some instances ten per cent. and more, was often charged for instalments of wages earned but not due, and the necessities of workingmen often compelled them to consent to almost any discount in order that they might have ready money. The adoption of the weekly payment system always deprives this practice of any excuse for its existence.

## SOME COMPARISONS.

In the report of this Bureau for 1886, during the administration of Professor Hadley as chief, we find statistics relative to the methods of payment in the State at that time. The inquiry conducted by that gentleman was not a general and complete one, as is the one that furnishes the basis for this report, but it was sufficiently extended to constitute an admirable background against which the present conditions can be placed for study and comparison. Mr. Hadley secured returns from 433 establishments employing 71,539 people, while the conclusions of this report are built upon a foundation of 1,801 establishments and 153,269 people. In 1886, according to the report of that year, the division of employes was as follows :

	Establishments.	Employes.	Per cent. of Employes.
Paid monthly, . . . .	189	29,338	41.0
Paid weekly, . . . .	156	27,459	38.4
Paid bi-weekly, . . . .	54	10,553	14.8
Mixed, . . . . .	34	4,179	5.8
Total, . . . . .	433	71,529	100.0

In contradistinction to the above summary, which indicates the conditions just previous to the passage of the weekly payment law, a statement of the existing situation is interesting as giving at a glance an idea of the progress made. It is as follows :

	Establishments.	Employees.	Per cent. of Employees.
Paid weekly, . . . . .	1,257	125,035	81.58
Paid monthly and irregular,	373	16,089	10.49
Paid bi-weekly, . . . . .	171	12,145	7.93
Total, . . . . .	1,801	153,269	100.00

In the foregoing table the few establishments paying irregularly are put with monthly, as both are beyond the purview of the law. There are but thirty-three of them and they employ but a very few people. It will be seen that in 1886 41 per cent. of the employes were being paid monthly while the figures for 1892 show a proportion of only 10.49 per cent. The percentage of those paid bi-weekly has been reduced from 14.8 to 7.93. It is in the weekly summaries, however, that we get an approximate impression of the results of the law. In 1886 Mr. Hadley reported that 38.4 per cent. of the employes were given their wages once a week, while now the results show that 81.58 per cent. are paid weekly. This is conclusive evidence of the advance secured under the law and a gratifying exhibition of the progress made since it was passed.

#### WEEKLY PAYMENTS IN 1860, 1880, AND 1892.

The accompanying investigation is based on inquiries relative to conditions in 1860, 1880, and 1892, and the progress made is perhaps more effectively shown by this report than by the preceding comparison with Mr. Hadley's conclusion in 1886. For this purpose some comparisons follow (Table III).

In Hartford county, in 1860, 20.37 per cent. of the establishments paid weekly, and 75.92 monthly and irregularly, while the balance, 3.71 per cent., gave wages once in two weeks. In 1880 the increase in those that paid weekly was a little less than 4 per cent., while in 1892 68.28 per cent. represents the proportion of factories in which weekly payments ruled.

New Haven county manufacturers evidently adopted the weekly payment system in advance of those in Hartford county. In New Haven county 38.89 per cent. of the employers paid weekly in 1860.

The proportion rose to 47.71 per cent. in 1880, while in 1892 it stood at 86.94 per cent. This county shows the highest percentage of establishments paying weekly.

In 1860, in New London county, only 14.29 per cent. of the establishments paid weekly, 42.86 per cent. paid monthly, and 35.71 per cent. paid at irregular periods. The conditions did not change much in 1880, with the exception of the elimination of the factories paying irregularly, they having adopted the monthly system in the interval. In 1892, however, 52.34 per cent. paid weekly.

Fairfield county, in 1860, leads all the counties in the ratio of establishments paying weekly, the figures being 47.27 per cent. The change was slight in 1880, but in 1892 77.02 per cent. paid weekly. This county has always contained the highest percentage of concerns paying bi-weekly, the proportion being as follows: In 1860, 18.18 per cent., in 1880, 28.64 per cent., and in 1892, 18.83 per cent.

In Windham county monthly payments were universal in 1860 and 1880. Not one establishment reporting for either of these periods paid weekly. In 1892, however, 43.42 per cent. had adopted the weekly system.

Two and sixty-three one-hundredths per cent. represents the proportion of employers that paid weekly in Litchfield county in 1860, while 26.32 per cent. had no regular pay-day. In 1880 91.93 per cent. were paying once a month, while in 1892 61.86 per cent. represented the proportion of those that had adopted the weekly payment plan.

Middlesex county shows the highest ratio of irregular payments in 1860, 64.52 per cent. of the establishments having no fixed pay-day then. None paid weekly. In 1880 only 5.80 per cent. were on the weekly basis. In 1892 33.06 per cent. paid weekly, 9.68 per cent. bi-weekly, and 56.45 per cent. monthly. This county has the highest percentage of monthly payment establishments in the State.

In Tolland county all payments were made monthly in 1860. In 1880 6.90 per cent. of the employers paid weekly, and all the rest monthly. In 1892 35.59 per cent. paid wages at intervals of a week, 10.17 per cent. had adopted the bi-weekly system, while 54.24 per cent. still adhered to the monthly plan.

#### THE QUESTION OF INCORPORATION.

The law does not apply to establishments not incorporated, although it has had the effect of inducing many such to pay weekly



or bi-weekly. The number of those that still adhere to the monthly or bi-weekly plan is 451, and in some instances reasonable excuses for not conforming with the general custom are given. There are still ninety-three incorporated establishments that pay monthly and bi-weekly, and the explanations they present will be alluded to later. In order to picture this phase of the question in its exact conditions the following table is arranged. It covers all the establishments in the State that do not pay weekly, states whether they are incorporated, and gives the number of employes under the different conditions:

ESTABLISHMENTS PAYING MONTHLY AND BI-WEEKLY, BY COUNTIES IN 1892.

COUNTIES.	ESTABLISHMENTS INCORPORATED.				ESTABLISHMENTS NOT INCORPORATED.			
	Paying Bi-Weekly.		Paying Monthly.		Paying Bi-Weekly.		Paying Monthly.	
	Estab-lish-ments.	Em-ployes.	Estab-lish-ments.	Em-ployes.	Estab-lish-ments.	Em-ployes.	Estab-lish-ments.	Em-ployes.
Hartford, .	5	213	5	1,041	16	237	92	2,292
New Haven, .	9	445	5	706	24	930	32	1,112
New London, .	4	663	7	593	11	776	39	1,668
Fairfield, .	7	1,483	2	300	70	5,787	15	239
Windham, .	1	8	10	1,494	1	30	31	1,591
Litchfield, .	1	43	12	912	4	220	20	634
Middlesex, .	7	692	10	479	5	42	61	1,670
Tolland, .	2	190	6	465	4	386	26	893
The State, .	36	3,737	57	5,990	135	8,408	316	10,099

It will be seen from the foregoing statement, that 544 establishments in the State, out of a total of 1,801, do not pay weekly. One hundred and seventy-one of them have adopted the bi-weekly system, which is a concession to the spirit of the Weekly Payment law, while 373 still adhere to the monthly plan. Twelve thousand and one hundred and forty-five employes get their wages every two weeks while 16,089 are paid once in a month. In the whole number, however, there are but ninety-three incorporated establishments that do not comply with the law. Nine thousand seven hundred and twenty-seven employes are at work in these establish-

ments, 3,737 of whom are paid bi-weekly and 5,990 monthly. When we compile the complete returns for the State the showing is as follows :

METHODS OF PAYMENT, 1892, BY EMPLOYEES.

COUNTIES.	Total Number of Establishments.	Total Number of Employes.	INCORPORATED ESTABLISHMENTS.			ESTABLISHMENTS NOT INCORPORATED.		
			Employes Paid Weekly.	Employes Paid Bi-Weekly.	Employes Paid Monthly.	Employes Paid Weekly.	Employes Paid Bi-Weekly.	Employes Paid Monthly.
Hartford, . . .	372	28,774	22,559	213	1,041	2,432	237	2,292
New Haven, . .	536	48,816	37,120	445	706	8,503	930	1,112
New London, . .	128	13,067	7,612	663	593	1,755	776	1,668
Fairfield, . . .	409	31,214	14,295	1,483	300	9,110	5,787	239
Windham, . . .	76	11,354	6,630	8	1,494	1,601	30	1,591
Litchfield, . .	97	7,997	5,784	43	912	404	220	634
Middlesex, . . .	124	6,509	3,154	692	479	472	42	1,670
Tolland, . . . .	59	5,538	3,372	190	465	232	386	893
The State, . . .	1,801	153,269	100,526	3,737	5,990	24,509	8,408	10,099

METHODS OF PAYMENT, 1892, IN PERCENTAGES OF EMPLOYEES.

COUNTIES.	INCORPORATED ESTABLISHMENTS.			ESTABLISHMENTS NOT INCORPORATED.		
	Employes Paid Weekly.	Employes Paid Bi-Weekly.	Employes Paid Monthly.	Employes Paid Weekly.	Employes Paid Bi-Weekly.	Employes Paid Monthly.
Hartford, . . . . .	78.40	.74	3.62	8.45	.82	7.97
New Haven, . . . . .	76.04	.91	1.45	17.42	1.90	2.28
New London, . . . . .	58.25	5.07	4.54	13.43	5.94	12.77
Fairfield, . . . . .	45.80	4.75	.96	29.18	18.54	.77
Windham, . . . . .	58.39	.07	13.16	14.10	.27	14.01
Litchfield, . . . . .	72.33	.54	11.40	5.05	2.75	7.93
Middlesex, . . . . .	48.46	10.63	7.36	7.25	.64	25.66
Tolland, . . . . .	60.89	3.43	8.40	4.19	6.97	16.12
The State, . . . . .	65.59	2.44	3.91	15.99	5.49	6.53

## INCORPORATED, BUT NOT PAYING WEEKLY.

The greatest percentage of employes of incorporated establishments that are not paid weekly is in Middlesex county, where it is 17.99 per cent. Ten and sixty-three one-hundredths per cent. of the number, principally in Middletown, are paid bi-weekly, and 7.36 per cent. monthly. The greater portion of the latter are in Middletown and Cromwell.

Windham county has the largest proportion of employes of incorporated establishments paid monthly. In that county the returns show that 13.16 per cent. are so paid, while but .07 per cent. are given their money bi-weekly. These results arise mainly from the fact that several large mills in Putnam, employing 850 people, still pay monthly. The other towns in which these conditions are mainly noted are Killingly and Sterling. This county contains 1,494 employes of incorporated establishments who are paid monthly, over 400 more than any other county in the State.

Litchfield county has also a large proportion of employes paid monthly by establishments organized under the laws of the State. Eleven and forty one-hundredths per cent. represents the proportion so paid in this county. The number of employes is 912, and 702 are at work in Winchester (Winsted), where it is asserted that they prefer this system and can get money on demand.

In Tolland county 11.83 per cent. of the employes of incorporated concerns are given their wages bi-weekly and monthly, 3.43 per cent. under the former method, and 8.40 per cent. under the latter. Reference to the tables will show that those paid monthly are principally in Stafford.

New London county is next with a total of 9.61 per cent. in incorporated establishments, divided as follows: Bi-weekly, 5.07; monthly, 4.54. The employes paid bi-weekly are almost all in New London, 530 out of the 663 being in that city, while those paid monthly are mainly in Norwich and Waterford. There are five incorporated establishments paying monthly in Norwich, employing 333 people.

In the other counties the percentages of employes of incorporated concerns not paid weekly are small. In Fairfield county 4.75 per cent. are paid bi-weekly, the establishments so doing being found in Huntington, Norwalk, and Greenwich. In Hartford county 3.62 per cent. of this class of employes get their wages monthly, and the towns in which the greater portion work are Canton (Collinsville), Enfield, and Glastonbury. New Haven county makes the lowest

showing. Out of the 48,816 employes in that county 1,151, or only 2.36 per cent., work for incorporated concerns that do not pay weekly.

#### SOME EXCUSES GIVEN AND METHODS ADOPTED.

In most instances the answer given by the managers of incorporated establishments, that do not pay weekly, to a query relative to the cause, is that the employes do not care for their wages so often. In other instances the distance from banks and the difficulty in conveying the money is cited. Others give no reason, while a few have refused requests for weekly payments.

One concern in Hartford county sends books to different departments each week on which employes can state that they want money. The agent was convinced "that the weekly payment law is not observed here." Another corporation, manufacturing gunpowder, pays monthly because its employes prefer this method, and the agent states that conversation with a number of the workmen sustained the statement of the employers. Several concerns claim to pay eighty per cent. weekly and notices were posted to that effect. In others no notice is given and all are practically on a monthly payment basis. One establishment pays monthly and "proposes to continue doing so." Another, owing to the character of its product finds it much more convenient to adopt the 80 per cent. clause in the law and applies the rule to both piece and day workers. The total number of incorporated establishments in Hartford county, not paying weekly, that post no notice or give no excuse is seven.

In New Haven there are five such corporations. Of the others in that county two establishments report that their employes are satisfied with monthly, and one that bi-weekly payments are acceptable. Several managers say their employes can have money weekly if they desire it or can draw when they please. One manager of an incorporated concern divides his employes into two sections and pays one squad each week, which he claims is in compliance with the law, while another says he has never paid weekly because he was never asked to do so.

In New London county three corporations have no excuse to make for not paying weekly, and four state that their employes prefer monthly payments. Four post notices that 80 per cent. will be paid, although they do not state what proportion of those who work in their factories avail themselves of the opportunity to draw money weekly.

Fairfield county contains six corporations that post no notice or present no excuse for non-compliance with the law. Another pays under the 80 per cent. proviso but posts no notice, while several state that their employes can have money on demand. In one establishment, where the employes had decided by a vote in favor of few pay days, the employer said "weekly pay means one drunk a week ; bi-weekly, one drunk in two weeks."

In Windham county there are seven incorporated establishments, six of which are cotton mills, that do not pay weekly and give no reason for their attitude against the law. One other concern posts an 80 per cent. notice and another states that its employes are satisfied.

Litchfield county has one incorporation that offers no excuse for monthly payments, another that was asked to pay weekly and refused, nine in which 80 per cent. notices are posted and two in which the employes are said to be satisfied.

The number of incorporated establishments in Middlesex county that do not post a notice or give no reason for not paying weekly is seven. Two others state that their employes are satisfied ; one, recently incorporated, contemplates weekly payments ; two claim immunity because they are not incorporated under Connecticut laws ; and one, because the bank is so remote, was compelled to give up weekly payments after a short trial in 1887. Three concerns claim to pay part payments on account oftener than once a week.

Tolland county has eight corporations that do not pay weekly. Seven of them, including four woolen mills, post no notice. Neither do they offer any explanation of their reason for ignoring the law.

Monthly payments and long hours usually go together. Many of the establishments that run twelve hours, as well as those in which the machinery is in motion from ten to eleven hours daily, with a short day Saturday to make sixty hours a week, pay but once a month. This condition is particularly noticeable in the eastern portion of the State. Another accompaniment of monthly payments is the practice of making partial return for labor in store orders. Of thirty-three establishments that issue store orders in part payment to their employes, twenty-two pay the balance once a month or irregularly, three settle bi-weekly and eight weekly.

ESTABLISHMENTS, NOT INCORPORATED, PAYING BI-WEEKLY  
AND MONTHLY.

There are 451 such establishments in the State. They employ 18,507 people, 8,408 of whom are paid bi-weekly, and 10,099



monthly. It should be remembered, however, that 24,509 employes of concerns not incorporated are being paid weekly, so that, even in this class of establishments, which are not amenable to the law, those that pay weekly are in the large majority. Fairfield county has the largest ratio of employes of establishments not incorporated that are not paid weekly. Bi-weekly payments seem to be the rule among this group of employers in that county, as 18.54 per cent. of all the employes receive their wages at intervals of two weeks. This showing is mainly the result of the conditions in Danbury and Bethel, where bi-weekly payments seem to be strongly entrenched. In Danbury thirty-four establishments pay in this way, while in Bethel there are seventeen. In Tolland county 6.97 per cent., and in New London county 5.94 per cent. pay bi-weekly. The largest percentage of establishments not incorporated that make payments for labor once a month is in Middlesex county, where the ratio is 25.66 per cent. There are sixty-one such establishments in the county, employing 1,670 people. East Haddam, Chester, and Haddam are the towns in which these establishments are located. In Tolland county 16.12 per cent. represents the proportion of such employes paid monthly, and Mansfield and Coventry are the towns from which this result is mainly derived. In Windham county 14.01 per cent. of the employes of this class of establishments receive their wages monthly, and they are principally at work in the towns of Killingly, Thompson, and Windham. New London county figures show that 12.77 per cent. of this class of employes are under similar conditions. They are located in New London, Groton, Preston, Sprague, and Waterford. In Hartford county the number of such establishments is ninety-two. They employ 2,292 people, and are mainly small factories, which accounts for the fact that the percentage of employes paid monthly is but 7.97. Ten of these establishments are in Manchester, Bristol has thirteen, Plainville eight, and the total includes a number of brick yards, principally in Hartford, Windsor, South Windsor, and Berlin. New Haven county shows that a total of 2.28 per cent. of employes of concerns not incorporated are paid monthly, while Fairfield county is the lowest in the list, with but .77 per cent.

#### METHODS OF PAYMENT IN DIFFERENT INDUSTRIES.

The various industries of the State show varying results in the manner in which they make payments for labor. The main inquiry does not include railroad employes, municipal laborers, and cigar

makers, most of whom are paid weekly. The printing and book-binding establishments head the list of those paying weekly, as 93.62 per cent. of the corporations and firms engaged in the business adopt this method. The proportion of establishments in other industries that lead in weekly payments is expressed by the following percentages: Silverware, 91.89; electrical goods and rubber goods, each 90.48; carriages and carriage parts, 89.90; breweries and distilleries, 88.24; brass and brass goods, 85.57; pianos and organs, 80.00. The brick-making establishments are at the bottom of the list, as only 4.44 per cent. of this class of employers pay weekly.

In bi-weekly payments the establishments making hats and hat materials come first with 61.05 per cent. Twenty-eight and fifty-seven one-hundredths per cent. of corset and corset material manufacturers, 26.86 per cent. of stone-cutting and quarrying establishments, and 26.09 per cent. of concerns making paper boxes, bags, and envelopes pay once in two weeks.

Of the brick yards in the State 88.89 per cent. pay monthly or irregularly. Paper mills show the next highest percentage, as 48.98 per cent. pay once a month. The textile industries also maintain a high percentage of monthly payments. Almost half, or 47.30 per cent. of the woolen mills, adopt this system, while 40.58 per cent. of the cotton mills also pay once in four weeks. The employes of 33.33 per cent. of the establishments manufacturing arms and ammunition are paid monthly, while the proportion in the factories grouped under the title of clocks, watches and toys is 29.41 per cent.

#### REPORTS FROM SAME ESTABLISHMENTS.

Three hundred and nine establishments furnished returns of the conditions existing in 1860 and 1880 as well as 1892. The piano industry is the only one which shows no change in this period as all the employes were paid weekly during the entire time. In the boots, shoes and leather goods trade, the figures are almost alike, the exception being that in 1860 a few paid irregularly, while now none exceed monthly payments and a few have adopted the bi-weekly system. In 1860 and 1892 77.78 per cent. of these establishments furnishing data paid weekly. Printing and bookbinding establishments also show that weekly payments have long been the rule in this business, the proportion for 1860 and 1892 being the same, 78.57 per cent. The greatest advance is evidenced among

brass and brass goods factories. In 1860 but 12.50 per cent. of these shops were paying weekly; in 1880 the proportion had advanced to 16.67 per cent., while in 1892 it stands at 91.67 per cent. General hardware establishments also show an increase, as in 1860 27.59 per cent. paid weekly, and in 1892 75.86 per cent. is the proportion. Among iron and steel concerns the ratio has increased from 19.05 per cent. in 1860 to 76.19 per cent. in 1892.

The same brick making concerns from which information has been secured show no change to more frequent periods of payment. Employes engaged in this industry doubtless have to wait longer for their wages than any other class of laborers, and their conditions have improved very slowly. In the textile industries we have no report of an establishment that paid weekly in 1860. The cotton mills, at that time, did not even observe the monthly system, as but 30.77 per cent. had a regular monthly pay pay, while 69.23 per cent. paid irregularly, settlements often being made but once in three months and occasionally at longer intervals. Ninety-one and sixty-seven one-hundredths per cent. of the woolen mills paid monthly in 1860, and 8.33 per cent. irregularly. In 1880 all of these establishments had given up the irregular method and were paying monthly. In 1892 53.85 per cent. of the cotton and 41.67 per cent. of the woolen mills were still paying monthly, while 58.33 per cent. of the woolen and 46.15 per cent. of the cotton establishments had adopted the weekly method. The rubber goods factories reporting for this period show that all paid monthly in 1860, in 1880 one-quarter of them paid weekly, while now all have adopted the latter plan. An idea of the changes made recently is particularly set forth in the following table :

SAME ESTABLISHMENTS REPORTED THAT CHANGED FROM  
BI-WEEKLY AND MONTHLY IN 1880 TO WEEKLY IN 1892.

	From Bi-Weekly.	From Monthly.
Hartford, . . . . .	6	74
New Haven, . . . . .	8	103
New London, . . . . .	....	28
Fairfield, . . . . .	26	20
Windham, . . . . .	....	16
Litchfield, . . . . .	1	32
Middlesex, . . . . .	2	17
Tolland, . . . . .	....	13
The State, . . . . .	43	303

The greatest number of changes is reported from Waterbury. In 1880, of the forty-one concerns in that city for which the Bureau has the facts, thirty-six paid monthly and five weekly. Thirty-three of the thirty-six have since changed from monthly to weekly. Fairfield county, in proportion to its importance, shows the fewest changes, but this is to be expected as the opportunity to do so was much less. That county was the first in the State to respond to the desire for more frequent payment of wages and New Haven was next. In 1880 48.96 per cent. of the establishments in Fairfield county, and 47.71 per cent. of those in New Haven county paid weekly. A few manufacturers, especially in Tolland county, have changed from monthly in 1880 to bi-weekly in 1892.

THE NOTICE CLAUSE IN THE LAW.

The Weekly Payment Statute (Sections 1749 and 1750) first provides that every corporation employing labor shall pay its employes once a week. It then states that when 80 per cent. of the estimated wages, earned and unpaid before the eighth day preceding the day of payment, are paid weekly, payment in full shall be made once in each month, provided notice of the same is given by the corporation in its printed rules and regulations. This proviso was inserted for the purpose of allowing establishments that paid by the piece, and in which, owing to the character of the product, it would be very inconvenient to ascertain the exact amount of work done

each week, to base their weekly payment on an estimate. Within its proper limitations it is correct, but it has doubtless led some employers to assume or imply that it authorizes monthly payments even to those who work by the day. There seems to be sufficient ambiguity in this law to create this impression, and a number of establishments are now making monthly payments under the presumption that where difficulty in estimating the weekly wage exists monthly payments are permissible. But few concerns in the State avail themselves of the 80 per cent. clause as the law intends. As a rule they prefer to make extra exertions to ascertain the exact amount due weekly, and thus save the trouble incidental to having five pay-days a month. When the law first went into effect notices were posted in a number of factories stating that employes who desired 80 per cent. of their wages could secure the money by notifying the office. This was done in several establishments that would have had no difficulty in making up weekly pay-rolls because of piece work, thus, while ostensibly obeying the letter of the law ignoring its spirit. The employes were not always satisfied that a request for 80 per cent. a week would not militate against the permanence of their employment, the notices were defaced or torn down, no effort was made to replace them, and as a rule the establishments practically continued on a monthly payment basis.

#### PARTIAL PAYMENT IN RENT, BOARD AND STORE ORDERS.

A classification of the establishments that pay a portion of the amount due for wages in rent, board or store orders, results in the discovery that payments of this kind are chiefly in rent. It is often necessary for mill owners, especially those depending on water to furnish motive power, and whose plants are in consequence comparatively isolated, to provide houses for their employes. As a rule, the tenements are of a cheap character and the rent is low, but in some places, South Manchester for instance, considerable pride is taken by the employers in the character and surroundings of their property and the effect on the tenants is noticeable. The proportion of establishments that have tenements as a part of their investment appears to be decreasing, however. Employers seem to incline to the conviction that furnishing shelter to their workpeople is not exactly their province, and are not disposed to do it unless compelled to. As a result of this sentiment the decrease is marked. The report of this Bureau for 1886 states that over one-third of the concerns reporting in that year owned their employes' tenements,



or, with those that had but few houses, one-half of all received more or less income from rent that was deducted from wages. The results, herewith reported, which include all establishments renting houses, should therefore be compared with the latter estimate. Instead of one-half, as in 1886, we now have not quite one-quarter.

The percentage of establishments that conduct boarding houses is much less, while the proportion of those that give store orders in part payment for labor is smaller still. The following table presents the existing conditions in relation to these three methods of partial payment by counties:

PARTIAL PAYMENTS IN 1892 BY ESTABLISHMENTS  
AND PERCENTAGES.

COUNTIES.	IN RENT.		IN BOARD.		IN STORE ORDERS.	
	Number of Establishments.	Per cent. of Whole Number.	Number of Establishments.	Per cent. of Whole Number.	Number of Establishments.	Per cent. of Whole Number.
Hartford, . . . . .	102	27.42	20	5.38	4	1.08
New Haven, . . . . .	68	12.69	14	2.61	5	.93
New London, . . . . .	45	35.16	18	14.06	3	2.34
Fairfield, . . . . .	42	10.27	1	.24	2	.49
Windham, . . . . .	43	56.58	17	22.37	16	21.05
Litchfield, . . . . .	52	53.60	6	6.19	2	2.06
Middlesex, . . . . .	47	37.90	2	1.61	....	....
Tolland, . . . . .	33	55.92	17	28.81	3	5.08
The State, . . . . .	432	23.99	95	5.27	35	1.94

Windham and Tolland counties show the largest percentage of establishments making partial payments for labor in either rent, board or store orders. This result is due to the fact that many of the mills manufacturing textiles in that locality make payments in this manner. In both counties over half the factories rent tenements, and 28.81 per cent. of those in Tolland and 22.37 per cent. in Windham conduct boarding houses as an accessory to their business. In Windham county 21.05 per cent., or nearly a quarter of the manufacturers, give store orders to their employees, while in

Tolland county 5.08 per cent. is the proportion of those who give such orders.

Litchfield county also shows a high percentage of establishments that rent tenements to their workmen. Fifty-three and sixty one-hundredths per cent. of the concerns in that county make partial payments for labor in rent, and the custom seems to have some hold in about every town in the county. But few, only 6.19 per cent., own boarding houses, and a smaller number, 2.06 per cent. pay in store orders.

In Middlesex county 37.90 per cent. of the employers rent tenements, 1.61 per cent. furnish board, while none are reported as giving store orders. In 1860 38.71 per cent. of the establishments in this county gave store orders. New London county has also a large proportion of establishments that own tenements, the percentage there being 35.16, while 14.06 per cent. manage boarding-houses for their employes. In Hartford county 27.42 per cent. rent tenements and 5.38 per cent. provide board and lodging.

New Haven and Fairfield counties show the smallest proportion of factories which have tenements or boarding houses connected with them. In New Haven county 12.69 per cent. of the establishments pay partially in rent, and 2.61 per cent. in board. Fairfield county has the lowest ratio in the State. In that county 10.27 per cent. rent tenements and only .24 per cent. furnish board. The following table presents the facts relative to the various methods of partial payments by industries :

ESTABLISHMENTS PAYING PARTIALLY IN STORE ORDERS,  
RENT, OR SUBSISTENCE IN 1892.—BY INDUSTRIES.

	Establish- ments Paying part in Store Orders.	ESTABLISHMENTS OWNING OR CONTROLLING	
		Tene- ments.	Boarding Houses.
Arms and Ammunition, . . . . .	.....	4	1
Boots, Shoes and Leather Goods, . . . .	1	5	.....
Brass and Brass Goods, . . . . .	.....	16	.....
Breweries and Distilleries, . . . . .	.....	3	.....
Brick, . . . . .	8	23	26
Carriages and Carriage Parts, . . . . .	.....	6	.....
Cotton Goods, . . . . .	16	65	24
Clocks, Watches and Toys, . . . . .	1	9	.....
Corsets and Corset Materials, . . . . .	.....	1	.....
Cutlery and Tools, . . . . .	.....	25	1
Electrical Goods, . . . . .	.....	1	.....
General Hardware, . . . . .	1	29	1
Hats and Hat Materials, . . . . .	.....	6	.....
Iron and Steel, . . . . .	1	36	3
Paper Mills, . . . . .	.....	32	3
Paper Boxes, Bags and Envelopes, . . .	.....	1	.....
Pianos and Organs, . . . . .	.....	1	.....
Printing and Bookbinding, . . . . .	.....	.....	.....
Rubber Goods, . . . . .	.....	5	2
Silk, Knit Goods, etc., . . . . .	2	30	7
Silverware, . . . . .	.....	8	.....
Stone-cutting and Quarrying, . . . . .	1	16	7
Wood-working, . . . . .	.....	18	.....
Woolen Goods, . . . . .	3	60	17
Miscellaneous, . . . . .	1	32	3
Totals, . . . . .	35	432	95

Establishments engaged in the manufacture of textiles lead in making partial payments in rent, board, or store orders. For instance, sixteen cotton mills give store orders to their employes, almost half the number of establishments so doing in the State. Sixty-five such mills rent tenements, and twenty-four furnish board. Only three of the woolen mills are reported as giving store orders, sixty of them own tenements, and twenty-four have boarding houses for their employes. The nature of the brick business explains its prominence in the rent and board columns. Thirty-two paper mills have tenement houses on their property, and thirty establishments manufacturing silk, knit goods, etc., furnish rents to their employes. The iron and steel industry also has a large proportionate number of establishments, thirty-six, that rent. Many of these are in Litchfield county.

PAYMENTS IN STORE ORDERS IN 1860, 1880 AND 1892, IN PERCENTAGES OF ALL ESTABLISHMENTS REPORTING.

COUNTIES.	1860.	1880.	1892.
Hartford, . . . . .	7.41	3.70	1.08
New Haven, . . . . .	11.11	1.63	.93
New London, . . . . .	14.29	8.57	2.34
Fairfield, . . . . .	5.45	1.04	.49
Windham, . . . . .	.....	43.24	21.05
Litchfield, . . . . .	34.21	14.52	2.06
Middlesex, . . . . .	38.71	1.45	.....
Tolland, . . . . .	12.50	10.34	5.08
The State, . . . . .	15.21	5.14	1.94

It is evident from the above figures that the practice of making partial payments to employes in store orders is decreasing in popularity. In 1860 15.21 per cent. of the establishments in the State were making such payments, while in 1892 only 1.94 per cent. did so. The greatest decrease since 1860 was in Middlesex county, from 38.71 per cent. in that year to none at the present time. In Litchfield county the decrease is also large. The Bureau has no data in this respect from Windham county for 1860, but in 1880 43.24 per cent. of the concerns there gave out store orders, while 21.05 per cent. did so in 1892. While Windham county shows the

largest percentage in 1892, it also exhibits the greatest decrease since 1880.

Payment in store orders is by far the most objectionable of the three methods of partial payment alluded to in the foregoing presentation of conditions. It is at times absolutely necessary for employers to furnish rent and board when they are doing business in sparsely settled sections. But this excuse does not apply to the custom of issuing store orders which compel the holder to purchase at a particular place and leaves him no alternative but to buy at whatever price the merchant or employer, if it is a company store, sees fit to charge. This objection has had much to do with creating strong opposition to the system, and it is rapidly being abolished. An illustration of its decadence is furnished by the following table, which shows by industries and in establishments from which reports were secured for 1860, 1880, and 1892, how the practice is decreasing :

## SAME ESTABLISHMENTS PAYING PARTLY IN STORE ORDERS.

	1860.	1880.	1892.
Boots, Shoes, and Leather Goods, .	1	....	....
Brass and Brass Goods, . . . .	2	....	....
Brick, . . . . .	2	2	2
Cotton Goods, . . . . .	10	5	1
Cutlery and Tools, . . . . .	6	....	....
Hardware, . . . . .	5	1	....
Iron and Steel, . . . . .	7	2	1
Paper Mills, . . . . .	2	....	....
Rubber Goods, . . . . .	2	....	....
Silk, Knit Goods, etc., . . . .	3	1	1
Stone-cutting and Quarrying, . .	2	....	....
Wood-working, . . . . .	2	....	....
Woolen Goods, . . . . .	1	....	....
Miscellaneous, . . . . .	2	....	....
Total, . . . . .	47	11	5



TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.

HARTFORD COUNTY.	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Hartford, . . 1860,	21	.....	....	20	....	1	....	1	....	....
“ . . 1880,	68	.....	4	61	3	....	....	18	....	....
“ . . 1892,	146	8,164	16	123	7	....	2	64	51	103
Avon, . . 1892,	1	25	....	1	....	....	....	1	1	1
Berlin, . . 1880,	2	.....	....	2	....	....	....	....	....	....
“ . . 1892,	8	797	1	6	1	....	....	2	....	2
Bristol, . . 1860,	4	.....	....	3	1	....	....	....	....	....
“ . . 1880,	15	.....	....	15	....	....	....	3	....	....
“ . . 1892,	41	2,355	2	39	....	....	....	3	20	29
Burlington, . 1880,	2	.....	....	2	....	....	....	....	....	....
“ . . 1892,	4	21	....	4	....	....	....	....	....	....
Canton, . . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . . 1880,	2	.....	....	2	....	....	....	....	....	....
“ . . 1892,	2	655	....	2	....	....	....	....	....	1
East Hartford, 1880,	3	.....	....	1	....	2	....	....	....	....
“ “ 1892,	4	200	....	1	....	3	....	....	3	4
East Windsor, 1860,	1	.....	....	....	....	1	....	....	....	....
“ “ 1880,	4	.....	....	4	....	....	....	....	....	....
“ “ 1892,	4	665	....	4	....	....	....	....	2	2
Enfield, . . 1860,	2	.....	....	1	....	1	....	....	....	....
“ . . 1880,	4	.....	....	1	2	1	....	....	....	....
“ . . 1892,	9	1,988	....	6	2	1	1	1	3	6
Farmington, . 1880,	4	.....	....	4	....	....	....	....	....	....
“ . . 1892,	10	558	....	9	1	....	....	3	7	8
Glastonbury, 1860,	2	.....	....	....	....	2	....	....	....	....
“ . . 1880,	5	.....	....	2	3	....	....	....	....	....
“ . . 1892,	8	557	....	6	2	....	1	1	6	7
Granby, . . 1892,	2	6	....	2	....	....	....	....	....	....
Manchester, . 1860,	4	.....	....	3	....	1	....	....	....	....
“ . . 1880,	9	.....	....	6	....	3	....	1	....	....
“ . . 1892,	21	2,753	....	14	....	7	....	5	10	14

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.

HARTFORD COUNTY.	NUMBER OF ESTAB- LISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In- corporated.	Not In- corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Hartford, . 1860,	.....	.....	9	2	8	2	.....	.....	1
“ . 1880,	.....	.....	33	9	26	....	.....	.....	.....
“ . 1892,	49	97	122	9	15	....	7	4	.....
Avon, . 1892,	1	.....	1	....	.....	.....	.....	.....	.....
Berlin, . 1880,	.....	.....	....	....	2	....	.....	.....	.....
“ . 1892,	5	3	4	....	2	2	4	4	.....
Bristol, . 1860,	.....	.....	....	....	4	....	.....	.....	.....
“ . 1880,	.....	.....	1	....	13	1	.....	.....	1
“ . 1892,	12	29	26	2	12	1	14	.....	.....
Burlington, . 1880,	.....	.....	1	....	1	....	.....	.....	.....
“ . 1892,	.....	4	1	....	3	....	3	.....	.....
Canton, . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1880,	.....	.....	....	....	2	....	.....	.....	.....
“ . 1892,	1	1	....	....	2	....	1	1	.....
East Hartford, 1880,	.....	.....	....	....	3	....	.....	.....	.....
“ “ 1892,	3	1	3	....	1	....	3	.....	.....
East Windsor, 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ “ 1880,	.....	.....	....	....	4	....	.....	.....	.....
“ “ 1892,	3	1	3	....	1	....	3	.....	.....
Enfield, . 1860,	.....	.....	....	....	2	....	.....	.....	.....
“ . 1880,	.....	.....	....	....	4	....	.....	.....	.....
“ . 1892,	4	5	4	....	5	....	7	1	.....
Farmington, . 1880,	.....	.....	....	....	4	....	.....	.....	.....
“ . 1892,	4	6	6	1	3	....	1	.....	.....
Glastonbury, 1860,	.....	.....	....	....	2	....	.....	.....	.....
“ . 1880,	.....	.....	....	....	5	....	.....	.....	.....
“ . 1892,	6	2	4	1	3	....	7	.....	.....
Granby, . 1892,	.....	2	1	....	1	....	.....	.....	.....
Manchester, . 1860,	.....	.....	....	....	2	2	.....	.....	1
“ . 1880,	.....	.....	....	....	8	1	.....	.....	.....
“ . 1892,	5	16	7	4	10	....	10	.....	.....

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

HARTFORD COUNTY. (Concluded.)	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
New Britain, 1860,	7	.....	....	7	....	....	....	....	....	....
“ “ . 1880,	24	.....	....	23	....	1	....	....	....	....
“ “ . 1892,	40	6,441	4	34	....	2	....	2	19	27
Newington, . 1880,	1	.....	....	1	....	....	....	....	....	....
“ . 1892,	2	77	....	1	1	....	....	....	....	....
Plainville, . 1860,	1	.....	....	...	....	1	....	....	....	....
“ . 1880,	9	.....	2	6	1	....	1	....	....	....
“ . 1892,	13	342	2	10	1	....	1	2	7	9
Rocky Hill, . 1892,	1	50	....	1	....	....	....	....	1	1
Simsbury, . 1860,	1	.....	....	...	1	....	....	....	....	....
“ . 1880,	1	.....	....	...	1	....	....	....	....	....
“ . 1892,	2	184	....	1	1	....	1	....	2	2
Southington, 1860,	2	.....	....	2	....	....	....	....	....	....
“ . 1880,	10	.....	....	10	....	....	....	....	....	....
“ . 1892,	12	1,146	1	10	1	....	....	2	5	8
South Windsor, 1892,	3	51	....	...	3	....	....	....	....	1
West Hartford, 1860,	1	.....	....	1	....	....	....	....	....	....
“ “ . 1880,	2	.....	....	2	....	....	....	....	....	....
“ “ . 1892,	3	106	....	3	....	....	....	....	1	2
Wethersfield, 1880,	1	.....	....	1	....	....	....	....	....	....
“ . 1892,	2	28	....	1	1	....	1	....	2	2
Windsor, . 1860,	2	.....	....	...	....	2	....	....	....	....
“ . 1880,	12	.....	....	3	8	1	....	....	....	....
“ . 1892,	20	566	1	10	7	2	....	....	7	8
Windsor Locks, 1860,	5	.....	....	3	1	1	....	....	....	....
“ “ 1880,	11	.....	....	6	3	2	1	....	....	....
“ “ 1892,	14	1,039	....	10	3	2	2	4	7	11
Totals, . . 1860.	54	.....	....	41	3	10	....	1	....	..
“ . . 1880.	189	.....	6	152	21	10	1	22	....	....
“ . . 1892.	372	28,774	27	297	31	17	9	90	154	248

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONTINUED.

HARTFORD COUNTY. (Concluded.)	NUMBER OF ESTAB- LISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In- corporated.	Not In- corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
New Britain, . 1860,	.....	.....	1	....	6	....	.....	.....	.....
“ “ . 1880,	.....	.....	9	1	12	2	.....	.....	.....
“ “ . 1892,	21	19	36	1	1	2	8	2	.....
Newington, . 1880,	.....	.....	....	....	....	1	.....	.....	.....
“ . 1892,	.....	2	....	....	1	1	2	1	.....
Plainville, . 1860,	.....	.....	....	....	....	1	.....	.....	.....
“ . 1880,	.....	.....	....	1	7	1	.....	.....	2
“ . 1892,	1	12	4	1	8	....	3	.....	2
Rocky Hill, . 1892,	.....	1	1	....	....	....	.....	.....	.....
Simsbury, . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1892,	1	1	1	....	1	....	2	1	.....
Southington, 1860,	.....	.....	....	....	2	....	.....	.....	.....
“ . 1880,	.....	.....	1	....	9	....	.....	.....	2
“ . 1892,	7	5	9	1	2	....	7	1	.....
South Windsor, 1892,	.....	3	....	....	3	....	2	3	.....
West Hartford, 1860,	.....	.....	1	....	....	....	.....	.....	.....
“ “ 1880,	.....	.....	1	....	....	1	.....	.....	.....
“ “ 1892,	2	1	2	....	....	1	1	1	.....
Wethersfield, 1880,	.....	.....	....	....	....	1	.....	.....	.....
“ . 1892,	1	1	2	....	....	....	.....	.....	.....
Windsor, . 1860,	.....	.....	....	....	..	2	.....	.....	2
“ . 1880,	.....	.....	....	....	5	7	.....	.....	2
“ . 1892,	7	13	9	....	2	9	8	1	2
Windsor Locks, 1860,	.....	.....	....	....	5	....	.....	.....	.....
“ “ 1880,	.....	.....	....	....	11	....	.....	.....	.....
“ “ 1892,	7	7	8	1	5	..	9	.....	.....
Totals, . . 1860,	.....	.....	11	2	34	7	.....	.....	4
“ . . 1880,	.....	.....	46	11	117	15	.....	.....	7
“ . . 1892,	140	232	254	21	81	16	102	20	4

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.—CONTINUED.

NEW HAVEN COUNTY.	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
New Haven, . 1860,	51	.....	2	47	1	1	....	10	....	....
“ . 1880,	153	.....	6	144	1	2	....	68	....	....
“ . 1892,	270	16,059	38	229	3	....	....	133	94	153
Waterbury, . 1860,	18	.....	....	18	....	....	....	4	....	....
“ . 1880,	41	.....	....	41	....	....	....	11	....	....
“ . 1892,	72	10,435	2	70	....	....	....	27	36	54
Ansonia, . . 1860,	3	.....	....	3	....	....	....	....	....	....
“ . . 1880,	8	.....	....	8	....	....	....	3	....	....
“ . . 1892,	17	3,300	....	17	....	....	....	5	10	15
Beacon Falls, 1860,	1	.....	....	...	1	....	....	....	....	....
“ . 1880,	1	.....	....	...	1	....	....	....	....	....
“ . 1892,	2	150	....	2	....	....	....	....	1	2
Branford, . . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . 1880,	2	.....	....	2	....	....	....	1	....	....
“ . 1892,	5	977	2	3	....	....	....	3	2	4
Cheshire, . . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . 1880,	1	.....	....	1	....	....	....	....	....	....
“ . 1892,	3	69	....	3	....	....	....	1	2	2
Derby, . . . 1860,	7	.....	....	6	1	....	....	....	....	....
“ . . 1880,	13	.....	....	12	1	....	....	3	....	....
“ . . 1892,	18	1,143	....	18	....	....	....	5	10	12
Guilford, . . 1880,	3	.....	....	3	....	....	....	1	....	....
“ . . 1892,	4	348	2	2	....	....	....	1	1	2
Hamden, . . . 1880,	11	.....	....	7	....	4	....	1	....	....
“ . . 1892,	14	730	1	8	....	5	....	2	5	12
Madison, . . . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . . 1880,	3	.....	....	3	....	....	....	....	....	....
“ . . 1892,	3	23	....	3	....	....	....	....	1	1
Meriden, . . . 1860,	10	.....	....	10	....	....	....	2	....	....
“ . . 1880,	30	.....	....	30	....	....	....	17	....	....
“ . . 1892,	60	7,821	9	51	....	....	....	37	38	46



TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.—CONTINUED.

NEW HAVEN COUNTY.	NUMBER OF ESTAB- LISHMENTS,		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In- corporated.	Not In- corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
New Haven, . 1860,	.....	.....	38	2	11	....	.....	.....	1
“ . 1880,	.....	.....	122	12	19	....	.....	.....	.....
“ . 1892,	89	181	257	9	4	....	7	.....	.....
Waterbury, . 1860,	.....	.....	....	....	18	....	.....	.....	.....
“ . 1880,	.....	.....	5	....	35	1	.....	.....	.....
“ . 1892,	42	30	65	2	5	....	12	.....	.....
Ansonia, . . 1860,	.....	.....	....	....	3	....	.....	.....	.....
“ . . 1880,	.....	.....	4	2	2	....	.....	.....	.....
“ . . 1892,	10	7	13	4	....	....	2	.....	.....
Beacon Falls, 1860,	.....	.....	....	....	1	....	.....	.....	1
“ . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1892,	2	.....	2	....	....	..	2	1	.....
Branford, . . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . . 1880,	.....	.....	....	....	2	....	.....	.....	.....
“ . . 1892,	3	2	4	1	....	....	4	1	.....
Cheshire, . . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . . 1892,	.....	3	1	....	2	....	1	.....	.....
Derby, . . . 1860,	.....	.....	2	1	4	....	.....	.....	2
“ . . . 1880,	.....	.....	3	2	8	....	.....	.....	.....
“ . . . 1892,	7	11	12	4	2	....	2	.....	.....
Guilford, . . 1880,	.....	.....	1	....	1	1	.....	.....	.....
“ . . . 1892,	.....	4	3	....	1	....	.....	1	.....
Hamden, . . . 1880,	.....	.....	....	1	7	3	.....	.....	3
“ . . . 1892,	5	9	4	3	4	3	10	5	3
Madison, . . . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . . . 1880,	.....	.....	....	....	3	....	.....	.....	.....
“ . . . 1892,	.....	3	....	1	2	....	.....	.....	.....
Meriden, . . . 1860,	.....	.....	1	....	9	....	.....	.....	2
“ . . . 1880,	.....	.....	4	1	24	1	.....	.....	.....
“ . . . 1892,	32	28	56	2	2	....	10	.....	.....

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.—CONTINUED.

NEW HAVEN COUNTY. (Concluded.)	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Milford, . . 1860,	2	.....	....	2	....	....	....	....	....	....
“ . . 1880,	2	.....	....	2	....	....	....	....	....	....
“ . . 1892,	4	489	....	4	....	....	...	3	3	3
Naugatuck, . 1860,	4	....	....	3	1	....	....	....	....	....
“ . . 1880,	5	.....	....	4	1	....	....	1	....	....
“ . . 1892,	13	3,358	....	13	....	....	....	3	9	11
North Haven, 1880,	2	.....	....	1	....	1	....	....	....	....
“ . . 1892,	8	273	1	4	....	3	....	....	4	7
Orange, . . 1860,	1	.....	....	1	....	....	....	1	....	....
“ . . 1880,	7	.....	....	6	....	1	....	4	....	....
“ . . 1892,	9	410	....	9	....	....	....	4	3	5
Prospect, . . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . . 1880,	1	.....	....	1	....	....	....	....	....	....
“ . . 1892,	1	5	....	1	....	....	....	....	....	....
Seymour, . . 1860,	4	.....	....	3	1	....	....	1	....	....
“ . . 1880,	9	.....	....	7	2	....	....	2	....	....
“ . . 1892,	12	951	1	10	1	....	....	4	11	9
Southbury, . 1880,	1	.....	....	1	....	....	....	....	....	....
“ . . 1892,	1	20	....	1	....	....	....	....	1	1
Wallingford, . 1860,	3	.....	....	3	....	....	....	....	....	....
“ . . 1880,	13	.....	....	13	....	....	....	5	....	....
“ . . 1892,	20	2,255	2	18	...	....	....	5	13	15
Totals, . . 1860,	108	.....	2	100	5	1	....	18	....	...
“ . . 1880,	306	.....	6	286	6	8	....	117	....	....
“ . . 1892,	536	48,816	58	466	4	8	....	233	244	354

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.—CONTINUED.

NEW HAVEN COUNTY. (Concluded.)	NUMBER OF ESTAB- LISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In- corporated.	Not In- corporated.	Weekly.	Bi- Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Milford, . . . 1860,	.....	.....	....	1	1	....	.....	.....	.....
“ . . . 1880,	.....	.....	....	1	1	....	.....	.....	.....
“ . . . 1892,	2	2	3	1	....	....	1	.....	.....
Naugatuck, . . 1860,	.....	.....	....	....	4	....	.....	.....	3
“ . . . 1880,	.....	.....	....	....	5	....	.....	.....	.....
“ . . . 1892,	5	3	11	2	....	....	6	2	.....
North Haven, . 1880,	.....	.....	....	....	1	1	.....	.....	1
“ . . . 1892,	3	5	3	2	....	3	3	3	2
Orange, . . . 1860,	.....	.....	....	....	1	....	.....	.....	1
“ . . . 1880,	.....	.....	3	....	4	....	.....	.....	.....
“ . . . 1892,	7	2	9	....	....	....	.....	.....	.....
Prospect, . . . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . . . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . . . 1892,	.....	1	....	....	1	....	.....	.....	.....
Seymour, . . . 1860,	.....	.....	....	....	4	....	.....	.....	1
“ . . . 1880,	.....	.....	....	....	9	....	.....	.....	.....
“ . . . 1892,	4	8	6	1	5	....	5	.....	.....
Southbury, . . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . . . 1892,	.....	1	....	1	....	....	1	1	.....
Wallingford, . 1860,	.....	.....	1	....	2	....	.....	.....	1
“ . . . 1880,	.....	.....	4	....	9	....	.....	.....	1
“ . . . 1892,	12	8	17	....	3	....	2	.....	.....
Totals, . . . 1860,	.....	.....	42	4	62	....	.....	.....	12
“ . . . 1880,	.....	.....	146	19	134	7	.....	.....	5
“ . . . 1892,	223	313	466	33	31	6	68	14	5

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONTINUED.

NEW LONDON COUNTY.	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT-URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
New London, 1860,	6	.....	....	6	....	....	....	....	....	....
“ 1880,	13	.....	....	11	2	....	1	....	....	....
“ 1892,	27	1,707	....	21	6	....	6	....	9	18
Norwich, 1860,	1	.....	....	1	....	....	....	1	....	....
“ 1880,	19	.....	....	10	6	3	1	2	....	....
“ 1892,	40	5,405	3	26	10	1	10	11	17	31
Bozrah, 1860,	1	.....	....	....	....	1	....	....	....	....
“ 1880,	1	.....	....	....	1	....	....	....	....	....
“ 1892,	2	306	....	1	1	....	1	....	2	2
Colchester, 1880,	1	.....	....	....	....	1	....	....	....	....
“ 1892,	2	722	....	1	....	1	....	....	1	2
East Lyme, 1880,	4	.....	....	3	1	....	....	....	....	....
“ 1892,	4	365	....	4	....	....	....	....	2	4
Griswold, 1880,	3	.....	....	....	3	....	3	....	....	....
“ 1892,	5	1,013	....	2	3	....	3	....	4	5
Groton, 1860,	1	.....	....	1	....	....	....	....	....	....
“ 1880,	6	.....	....	6	....	....	....	....	....	....
“ 1892,	10	385	2	8	....	....	....	2	3	6
Lyme, 1892,	1	16	....	1	....	....	....	1	1	....
Montville, 1880,	4	.....	....	....	4	....	....	....	....	....
“ 1892,	9	561	....	1	7	1	7	....	6	8
N. Stonington, 1880,	3	.....	....	3	....	....	....	....	....	....
“ 1892,	4	121	....	4	....	....	....	....	3	3
Old Lyme, 1892,	1	20	....	1	....	....	....	....	....	1
Preston, 1860,	1	.....	....	....	1	....	....	....	....	....
“ 1880,	2	.....	....	....	2	....	....	....	....	....
“ 1892,	2	248	....	1	1	....	1	....	2	1
Sprague, 1880,	2	.....	....	....	2	....	....	....	....	....
“ 1892,	3	155	....	....	2	1	2	....	2	2

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

			NUMBER OF ESTABLISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
NEW LONDON COUNTY.			In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
New London,	1860,	.....	.....	.....	2	1	....	3	.....	.....	..
" "	1880,	.....	.....	.....	4	1	8	....	.....	.....	.....
" "	1892,	9	18	13	5	9	....	.....	.....	.....	.....
Norwich,	1860,	.....	.....	.....	.....	.....	1	....	.....	.....	.....
"	1880,	.....	.....	.....	2	1	16	....	.....	.....	.....
"	1892,	22	18	29	2	9	....	.....	11	2	.....
Bozrah,	1860,	.....	.....	.....	.....	.....	1	....	.....	.....	.....
"	1880,	.....	.....	.....	.....	.....	1	....	.....	.....	.....
"	1892,	1	1	1	1	....	.....	.....	2	2	.....
Colchester,	1880,	.....	.....	.....	.....	.....	1	....	.....	.....	.....
"	1892,	1	1	1	.....	1	....	.....	2	1	.....
East Lyme,	1880,	.....	.....	.....	.....	.....	4	....	.....	.....	2
" "	1892,	1	3	1	.....	3	....	.....	2	4	2
Griswold,	1880,	.....	.....	.....	.....	.....	3	....	.....	.....	1
"	1892,	2	3	4	.....	1	....	.....	4	1	1
Groton,	1860,	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
"	1880,	.....	.....	.....	3	2	1	....	.....	.....	.....
"	1892,	2	8	3	2	5	....	.....	.....	.....	.....
Lyme,	1892,	.....	1	.....	.....	1	....	.....	.....	.....	.....
Montville,	1880,	.....	.....	.....	.....	.....	4	....	.....	.....	.....
"	1892,	3	6	4	3	2	....	.....	6	2	.....
N. Stonington,	1880,	.....	.....	.....	1	.....	2	....	.....	.....	1
" "	1892,	1	3	2	.....	2	....	.....	3	.....	.....
Old Lyme,	1892,	.....	1	.....	.....	1	....	.....	.....	.....	.....
Preston,	1860,	.....	.....	.....	.....	.....	1	....	.....	.....	.....
"	1880,	.....	.....	.....	.....	.....	2	....	.....	.....	.....
"	1892,	.....	2	.....	.....	2	....	.....	2	.....	.....
Sprague,	1880,	.....	.....	.....	.....	.....	2	....	.....	.....	.....
"	1892,	1	2	.....	.....	3	....	.....	3	2	.....



TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONTINUED.

NEW LONDON COUNTY. (Concluded.)	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Stonington, . 1860,	1	...	...	...	...	1	...	...	...	...
“ . 1880,	9	.....	...	7	2	...	2	...	...	...
“ . 1892,	12	1,457	...	10	2	...	2	...	6	9
Waterford, . 1860,	2	.....	...	...	2	...	...	...	...	...
“ . 1880,	2	.....	...	...	2	...	...	...	...	...
“ . 1892,	5	411	3	...	2	...	...	...	1	3
Voluntown, . 1860,	1	.....	...	...	...	1	...	...	...	...
“ . 1880,	1	.....	...	...	1	...	...	...	...	...
“ . 1892,	1	175	...	1	...	...	...	...	1	1
Totals, . . 1860,	14	.....	...	8	3	3	...	1	...	...
“ . . 1880,	70	.....	...	42	24	4	7	2	...	...
“ . . 1892,	128	13,067	8	82	34	4	32	14	60	96

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

NEW LONDON COUNTY. (Concluded.)	NUMBER OF ESTAB- LISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In- corporated.	Not In- corporated.	Weekly.	Bi- Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Stonington, . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1880,	.....	.....	2	1	6	....	.....	.....	.....
“ . 1892,	4	8	8	2	2	....	5	2	.....
Waterford, . 1860,	.....	.....	....	....	1	1	.....	.....	1
“ . 1880,	.....	.....	....	....	2	....	.....	.....	1
“ . 1892,	1	4	....	....	5	....	4	2	.....
Voluntown, . 1860,	.....	.....	....	....	1	....	.....	.....	1
“ . 1880,	.....	.....	....	....	1	....	.....	.....	1
“ . 1892,	.....	1	1	....	....	....	1	.....	.....
Totals, . . 1860,	.....	.....	2	1	6	5	.....	.....	2
“ . . 1880,	.....	.....	12	5	53	....	.....	.....	6
“ . . 1892,	48	80	67	15	46	....	45	18	3

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

FAIRFIELD COUNTY.	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT-URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Bridgeport, . 1860,	18	.....	....	17	....	1	....	14	....	....
“ . 1880,	75	.....	2	72	....	1	....	58	....	....
“ . 1892,	166	13,609	15	146	5	....	....	132	66	128
Danbury, . 1860,	7	.....	....	7	....	....	....	....	....	....
“ . 1880,	24	.....	1	21	....	2	....	....	....	....
“ . 1892,	66	4,950	*7	58	....	1	....	17	42	55
Bethel, . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . 1880,	7	.....	....	6	....	1	....	1	....	....
“ . 1892,	19	1,359	1	17	....	1	....	3	16	16
Brookfield, . 1892,	3	34	....	3	....	....	....	3	2	2
Fairfield, . 1880,	1	.....	....	1	....	....	....	1	....	....
“ . 1892,	5	112	....	5	....	....	....	2	1	3
Greenwich, . 1860,	3	.....	....	3	....	....	....	....	....	....
“ . 1880,	6	.....	....	5	1	....	....	1	....	....
“ . 1892,	8	889	....	7	1	....	1	2	2	5
Huntington, . 1860,	2	.....	....	2	....	....	....	....	....	....
“ . 1880,	13	.....	....	11	2	....	....	....	....	....
“ . 1892,	23	2,276	....	21	2	....	....	2	14	22
Monroe, . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . 1880,	1	.....	....	1	....	....	....	1	....	....
“ . 1892,	1	30	....	1	....	....	....	1	1	1
New Canaan, . 1860,	1	.....	....	1	....	....	....	1	....	....
“ “ . 1880,	6	.....	....	5	....	1	....	2	....	....
“ “ . 1892,	7	277	1	6	....	....	....	3	4	6
Newtown, . 1860,	3	.....	....	3	....	....	....	....	....	....
“ . 1880,	6	.....	....	6	....	....	....	....	....	....
“ . 1892,	6	466	....	6	....	....	....	....	4	5
Norwalk, . 1860,	9	.....	1	4	3	1	....	....	....	....
“ . 1880,	28	.....	1	24	3	....	....	10	....	....
“ . 1892,	51	4,418	6	44	1	....	1	34	26	38

\*Including four 8-hour shops.

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONTINUED.

FAIRFIELD COUNTY.	NUMBER OF ESTABLISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Bridgeport, . 1860,	.....	.....	16	....	2	....	.....	.....	.....
“ . 1880,	.....	.....	52	9	12	2	.....	.....	.....
“ . 1892,	77	89	162	3	....	1	8	.....	.....
Danbury, . 1860,	.....	.....	2	4	1	....	.....	.....	.....
“ . 1880,	.....	.....	7	16	1	....	.....	.....	.....
“ . 1892,	4	62	32	34	....	....	5	.....	.....
Bethel, . 1860,	.....	.....	....	....	....	1	.....	.....	.....
“ . 1880,	.....	.....	....	7	....	....	.....	.....	.....
“ . 1892,	1	18	2	17	....	....	1	.....	.....
Brookfield, . 1892,	1	2	1	1	1	....	.....	.....	.....
Fairfield, . 1880,	.....	.....	1	....	....	....	.....	.....	.....
“ . 1892,	1	4	5	....	....	....	.....	.....	.....
Greenwich, . 1860,	.....	.....	....	3	....	....	.....	.....	.....
“ . 1880,	.....	.....	1	5	....	....	.....	.....	1
“ . 1892,	5	3	4	4	....	....	4	.....	1
Huntington, . 1860,	.....	.....	....	....	2	....	.....	.....	2
“ . 1880,	.....	.....	3	5	5	....	.....	.....	.....
“ . 1892,	15	8	19	4	....	....	3	.....	.....
Monroe, . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1892,	.....	1	....	....	1	....	.....	.....	.....
New Canaan, . 1860,	.....	.....	1	....	....	....	.....	.....	.....
“ “ . 1880,	.....	.....	5	....	1	....	.....	.....	.....
“ “ . 1892,	.....	7	6	....	1	....	1	.....	.....
Newtown, . 1860,	.....	.....	....	....	1	2	.....	.....	.....
“ . 1880,	.....	.....	....	....	3	3	.....	.....	.....
“ . 1892,	2	4	2	....	1	3	3	.....	.....
Norwalk, . 1860,	.....	.....	3	2	3	1	.....	.....	.....
“ . 1880,	.....	.....	16	6	5	1	.....	.....	.....
“ . 1892,	12	39	45	5	....	1	6	1	.....

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

FAIRFIELD COUNTY. (Concluded.)	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Redding, . 1860,	1	.....	....	1	....	....	....	1	....	....
“ . 1880,	1	.....	....	1	....	....	....	1	....	....
“ . 1892,	1	182	....	1	....	....	....	1	1	....
Stamford, . 1860,	7	.....	....	6	....	1	....	2	....	....
“ . 1880,	17	.....	....	17	....	....	....	8	....	....
“ . 1892,	33	2,073	2	31	....	....	....	24	10	27
Stratford, . 1892,	4	62	1	3	....	....	....	....	1	1
Trumbull, . 1880,	3	.....	....	2	1	....	....	1	....	....
“ . 1892,	4	125	....	3	1	....	....	2	3	3
Weston, . 1860,	1	.....	....	1	....	....	....	....	....	....
“ . 1880,	2	.....	....	2	....	....	....	....	....	....
“ . 1892,	2	45	....	2	....	....	....	....	....	1
Westport, . 1860,	1	.....	....	...	....	1	....	....	....	....
“ . 1880,	2	.....	....	1	....	1	....	....	....	....
“ . 1892,	10	307	....	9	....	1	....	3	6	9
Totals, . . 1860,	55	.....	1	47	3	4	....	18	....	....
“ . . 1880,	192	.....	4	175	7	6	....	84	....	....
“ . . 1892,	409	31,214	33	363	10	3	2	229	199	322



TABLE 1.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONTINUED.

FAIRFIELD COUNTY. (Concluded.)		NUMBER OF ESTABLISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
		In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Redding,	1860,	.....	.....	1	....	....	....	.....	.....	.....
"	1880,	.....	.....	1	....	....	....	.....	.....	.....
"	1892,	1	.....	1	....	....	....	1	.....	.....
Stamford,	1860,	.....	.....	3	1	2	1	.....	.....	.....
"	1880,	.....	.....	7	4	4	2	.....	.....	.....
"	1892,	8	25	24	4	3	2	3	.....	.....
Stratford,	1892,	2	2	3	1	....	....	.....	.....	1
Trumbull,	1880,	.....	.....	1	2	....	....	.....	.....	.....
"	1892,	.....	4	1	2	1	....	1	.....	.....
Weston,	1860,	.....	.....	....	....	1	....	.....	.....	.....
"	1880,	.....	.....	....	....	1	1	.....	.....	.....
"	1892,	.....	2	....	....	1	1	2	.....	.....
Westport,	1860,	.....	.....	....	....	1	....	.....	.....	1
"	1880,	.....	.....	....	1	1	....	.....	.....	1
"	1892,	3	7	8	2	....	....	4	.....	.....
Totals,	1860,	.....	.....	26	10	14	5	.....	.....	3
"	1880,	.....	.....	94	55	34	9	.....	.....	2
"	1892,	132	277	315	77	9	8	42	1	2

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.—CONTINUED.

WINDHAM COUNTY.	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.			SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.	
Brooklyn, . 1880,	1	.....	....	...	1	....	....	....	....
“ . 1892,	2	780	....	1	1	....	1	....	1
Canterbury, . 1892,	1	30	....	...	1	....	1	....	1
Chaplin, . 1860,	1	.....	....	....	....	1	....	....	....
“ . 1880,	1	.....	....	....	....	1	....	....	....
“ . 1892,	1	12	....	...	....	1	....	....	....
Eastford, . 1892,	1	10	....	...	1	....	1	....	1
Killingly, . 1880,	8	.....	....	...	3	5	....	....	....
“ . 1892,	17	1,814	....	2	15	....	15	....	14
Plainfield, . 1880,	6	.....	....	...	6	....	....	....	....
“ . 1892,	8	1,574	....	1	6	1	6	....	7
Putnam, . 1880,	9	.....	....	1	8	....	2	....	....
“ . 1892,	19	1,832	....	4	15	....	15	....	15
Sterling, . 1892,	2	262	....	...	2	....	2	....	2
Thompson, . 1880,	4	.....	....	...	3	1	....	....	....
“ . 1892,	5	2,187	....	...	5	....	5	....	4
Windham, . 1880,	8	.....	....	3	5	....	1	....	....
“ . 1892,	18	2,833	....	5	13	....	13	1	11
Woodstock, . 1892,	2	20	....	...	....	2*	....	....	2
Totals, . 1860,	1	.....	....	...	....	1	....	....	....
“ . 1880,	37	.....	....	4	26	7	3	....	....
“ . 1892,	76	11,354	....	13	59	4	59	1	58

\*Eleven and one-half hours per day; short time Saturday to make sixty-three hours a week.

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.—CONTINUED.

WINDHAM COUNTY.		NUMBER OF ESTAB- LISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
		In- corporated.	Not In- corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Brooklyn,	1880,	.....	.....	.....	.....	1	.....	.....	.....	1
"	1892,	.....	2	1	1	.....	.....	2	1	2
Canterbury,	1892,	.....	1	.....	.....	1	.....	1	.....	.....
Chaplin,	1860,	.....	.....	.....	.....	1	.....	.....	.....	.....
"	1880,	.....	.....	.....	.....	1	.....	.....	.....	.....
"	1892,	.....	1	.....	.....	1	.....	1	.....	.....
Eastford,	1892,	.....	1	.....	.....	1	.....	.....	.....	.....
Killingly,	1880,	.....	.....	.....	.....	8	.....	.....	.....	4
"	1892,	8	9	9	.....	8	.....	12	7	6
Plainfield,	1880,	.....	.....	.....	.....	6	.....	.....	.....	4
"	1892,	3	5	5	.....	3	.....	8	2	2
Putnam,	1880,	.....	.....	.....	.....	9	.....	.....	.....	4
"	1892,	9	10	10	1	8	.....	6	1	4
Sterling,	1892,	2	.....	.....	.....	2	.....	2	1	1
Thompson,	1880,	.....	.....	.....	.....	4	.....	.....	.....	1
"	1892,	1	4	1	.....	3	1	5	2	1
Windham,	1880,	.....	.....	.....	.....	8	.....	.....	.....	2
"	1892,	5	13	7	.....	10	1	5	3	.....
Woodstock,	1892,	.....	2	.....	.....	2	.....	1	.....	.....
Totals,	1860,	.....	.....	.....	.....	1	.....	.....	.....	.....
"	1880,	.....	.....	.....	.....	37	.....	.....	.....	16
"	1892,	28	48	33	2	39	2	43	17	16

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONTINUED.

LITCHFIELD COUNTY.		Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT-URDAY.		Employing Women.	Employing Minors.
				Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Litchfield,	1860,	1	.....	....	1	....	....	....	....	....	..
"	1880,	3	.....	....	3	....	....	....	....	....	....
"	1892,	3	112	....	3	....	....	....	....	2	3
Barkhamsted,	1860,	2	.....	....	2	....	....	....	....	....	....
"	1880,	3	.....	....	2	1	....	....	....	....	....
"	1892,	5	135	....	5	....	....	....	....	3	4
Colebrook,	1860,	2	.....	....	2	....	....	....	....	....	....
"	1892,	2	88	....	2	....	....	....	....	1	2
Cornwall,	1860,	2	.....	....	1	....	1	....	....	....	....
"	1880,	2	.....	....	1	....	1	....	....	....	....
"	1892,	2	38	....	1	....	*1	....	....	....	2
New Hartford,	1860,	3	.....	....	1	2	....	....	....	....	....
"	1880,	4	.....	....	2	2	....	....	....	....	....
"	1892,	6	1,095	....	6	....	....	....	1	5	6
New Milford,	1860,	1	.....	....	1	....	....	....	....	....	....
"	1880,	5	.....	....	5	....	....	....	....	....	....
"	1892,	9	407	....	9	....	....	....	1	6	6
Norfolk,	1860,	1	.....	....	...	....	1	....	....	....	....
"	1880,	1	.....	....	...	1	....	....	....	....	....
"	1892,	2	129	....	2	....	....	....	1	2	2
North Canaan,	1860,	1	.....	....	...	....	1	....	....	....	....
"	1880,	3	.....	....	...	....	3	....	....	....	....
"	1892,	7	185	....	3	....	*4	....	1	....	3
Plymouth,	1860,	2	.....	....	2	....	....	....	....	....	....
"	1880,	2	.....	....	2	....	....	....	....	....	....
"	1892,	4	445	....	4	....	....	....	....	2	2
Roxbury,	1880,	1	.....	....	1	....	....	....	....	....	....
"	1892,	1	80	1	...	....	....	....	1	....	1

\*Furnace and kiln hands work 12 hours, others 10; in one case 11.

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

LITCHFIELD COUNTY.		NUMBER OF ESTABLISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
		In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Litchfield,	1860,	.....	.....	....	....	....	1	.....	.....	1
"	1880,	.....	.....	....	....	3	...	.....	.....	.....
"	1892,	.....	3	2	....	1	....	3	.....	.....
Barkhamsted,	1860,	.....	.....	....	....	2	....	.....	.....	.....
"	1880,	.....	.....	....	....	3	....	.....	.....	1
"	1892,	2	3	1	....	4	....	1	.....	.....
Colebrook,	1860,	.....	.....	....	....	2	....	.....	.....	.....
"	1892,	1	1	....	....	2	....	2	.....	.....
Cornwall,	1860,	.....	.....	....	....	2	....	.....	.....	2
"	1880,	.....	.....	....	....	2	....	.....	.....	1
"	1892,	1	1	....	....	2	....	2	.....	1
New Hartford,	1860,	.....	.....	....	....	1	2	.....	.....	2
"	1880,	.....	.....	....	....	4	....	.....	.....	2
"	1892,	2	4	2	2	2	....	4	1	1
New Milford,	1860,	.....	.....	1	....	....	....	.....	.....	.....
"	1880,	.....	.....	1	2	2	....	.....	.....	1
"	1892,	4	5	5	2	2	....	2	.....	.....
Norfolk,	1860,	.....	.....	....	....	1	....	.....	.....	.....
"	1880,	.....	.....	....	....	1	....	.....	.....	.....
"	1892,	2	.....	2	....	....	....	2	.....	.....
North Canaan,	1860,	.....	.....	....	....	1	....	.....	.....	1
"	1880,	.....	.....	....	....	3	....	.....	.....	1
"	1892,	2	5	5	....	2	....	5	2	.....
Plymouth,	1860,	.....	.....	....	....	2	....	.....	.....	.....
"	1880,	.....	.....	....	....	2	....	.....	.....	.....
"	1892,	2	2	3	....	1	....	2	.....	.....
Roxbury,	1860,	.....	.....	....	....	1	....	.....	.....	.....
"	1892,	.....	1	....	....	1	....	1	.....	.....



TABLE I.—HOURS OF LABOR—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONTINUED.

LITCHFIELD COUNTY. (Concluded.)	Number of Establishments.	Total No. Employees.	DAILY HOURS OF LABOR.			SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.		
Salisbury, . 1860,	4	.....	....	...	1	3	....	....	....
“ . 1880,	6	.....	....	3	2	1	....	....	....
“ . 1892,	8	308	....	6	....	*2	....	3	2 6
Sharon, . 1880,	1	.....	....	....	....	1	....	....	....
“ . 1892,	1	23	....	...	....	1	....	....	....
Thomaston, . 1860,	2	.....	....	2	....	....	....	....	....
“ . 1880,	3	.....	....	3	....	....	....	....	....
“ . 1892,	6	996	....	6	....	....	....	3	5
Torrington, . 1860,	6	.....	....	5	1	....	....	1	....
“ . 1880,	8	.....	....	8	....	....	....	1	....
“ . 1892,	12	1,910	....	12	....	....	....	4	6 12
Watertown, . 1860,	3	.....	....	3	....	....	....	....	....
“ . 1880,	5	.....	....	5	....	....	....	....	....
“ . 1892,	7	546	....	5	2	....	2	1	5 7
Winchester, . 1860,	8	.....	....	7	1	....	....	1	....
“ . 1880,	11	.....	....	11	....	....	....	1	....
“ . 1892,	19	1,380	....	†19	....	....	....	3	14 17
Woodbury, . 1860,	2	.....	....	2	....	....	....	....	....
“ . 1880,	2	.....	....	2	....	....	....	....	....
“ . 1892,	3	120	....	3	....	....	....	....	3 2
Totals, . . 1860,	38	.....	....	27	5	6	....	2	....
“ . 1880,	62	.....	....	50	6	6	....	2	....
“ . 1892,	97	7,997	1	86	2	8	2	16	54 80

\*Furnace and kiln hands work 12 hours, others 10; in one case 11.

†Eight of these concerns work over 10 hours daily in summer months only with short day Saturday to make 60 hours a week.

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

		NUMBER OF ESTABLISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
		In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
LITCHFIELD COUNTY. (Concluded.)										
Salisbury,	1860,	.....	.....	....	....	2	2	.....	.....	4
"	1880,	.....	.....	....	....	6	....	.....	.....	1
"	1892,	7	1	7	....	1	....	7	1	.....
Sharon,	1860,	.....	.....	....	....	1	....	.....	.....	.....
"	1892,	1	.....	1	....	....	....	1	1	.....
Thomaston,	1860,	.....	.....	....	....	....	2	.....	.....	.....
"	1880,	.....	.....	1	....	2	....	.....	.....	1
"	1892,	3	3	4	1	1	....	3	.....	.....
Torrington,	1860,	.....	.....	....	....	5	1	.....	.....	1
"	1880,	.....	.....	1	....	7	....	.....	.....	1
"	1892,	10	2	12	....	....	....	5	.....	.....
Watertown,	1860,	.....	.....	....	....	2	1	.....	.....	1
"	1880,	.....	.....	....	....	5	....	.....	.....	.....
"	1892,	3	4	5	....	2	....	4	1	.....
Winchester,	1860,	.....	.....	....	....	7	1	.....	.....	1
"	1880,	.....	.....	....	....	11	....	.....	.....	.....
"	1892,	17	2	11	....	8	....	6	.....	.....
Woodbury,	1860,	.....	.....	....	....	2	....	.....	.....	.....
"	1880,	.....	.....	....	....	2	....	.....	.....	.....
"	1892,	1	2	....	....	3	....	2	.....	.....
Totals,	1860,	.....	.....	1	....	27	10	.....	.....	13
"	1880,	.....	.....	3	2	57	....	.....	.....	9
"	1892,	58	39	60	5	32	....	52	6	2

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

MIDDLESEX COUNTY.	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Middletown, . 1860,	5	.....	....	2	1	2	....	....	....	....
“ . 1880,	20	.....	....	16	2	2	....	2	....	....
“ . 1892,	39	2,820	9	28	2	....	....	8	18	24
Haddam, . 1860,	2	.....	....	1	....	1	....	....	....	....
“ . 1880,	3	.....	....	2	....	1	....	....	....	....
“ . 1892,	7	327	1	5	1	....	1	....	2	5
Chatham, . 1860,	6	.....	....	6	....	....	....	....	....	....
“ . 1880,	8	.....	....	8	....	....	....	....	....	....
“ . 1892,	14	363	2	11	1	....	1	....	10	11
Chester, . 1860,	5	.....	....	4	1	....	....	....	....	....
“ . 1880,	9	.....	....	9	....	....	....	....	....	....
“ . 1892,	14	233	....	14	....	....	....	....	6	9
Clinton, . 1880,	1	.....	....	1	....	....	....	....	....	....
“ . 1892,	4	24	....	2	....	2	....	1	....	1
Cromwell, . 1860,	3	.....	....	3	....	....	....	....	....	....
“ . 1880,	4	.....	....	3	1	....	....	....	....	....
“ . 1892,	7	376	2	4	1	....	....	3	1	4
Durham, . 1880,	1	.....	....	1	....	....	....	....	....	....
“ . 1892,	1	35	....	1	....	....	....	....	1	1
East Haddam, 1860,	7	.....	....	2	1	*4	....	....	....	....
“ “ 1880,	9	.....	....	2	4	†3	....	1	....	....
“ “ 1892,	11	401	1	7	3	....	3	....	10	10
Essex, . 1880,	3	.....	....	3	....	....	....	....	....	....
“ . 1892,	9	426	1	8	....	....	....	....	6	7
Middlefield, . 1880,	3	.....	....	2	1	....	1	....	....	....
“ . 1892,	6	158	....	4	2	....	2	....	3	4

\*Two concerns ran 13 hours daily.

†One concern ran 12 hours daily.

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

MIDDLESEX COUNTY.	NUMBER OF ESTAB- LISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In- corporated.	Not In- corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Middletown, . 1860,	.....	.....	....	....	3	2	.....	.....	1
“ . 1880,	.....	.....	4	2	12	2	.....	.....	.....
“ . 1892,	13	26	23	6	10	....	7	1	.....
Haddam, . 1860,	.....	.....	....	....	....	2	.....	.....	1
“ . 1880,	.....	.....	....	....	3	....	.....	.....	.....
“ . 1892,	3	4	2	1	4	....	3	.....	.....
Chatham, . 1860,	.....	.....	....	....	2	4	.....	.....	2
“ . 1880,	.....	.....	....	....	5	3	.....	.....	.....
“ . 1892,	3	11	2	....	11	1	6	.....	.....
Chester, . 1860,	.....	.....	....	....	2	3	.....	.....	1
“ . 1880,	.....	.....	....	....	9	....	.....	.....	.....
“ . 1892,	2	12	1	....	13	....	6	.....	.....
Clinton, . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1892,	.....	4	....	1	3	....	.....	.....	.....
Cromwell, . 1860,	.....	.....	....	....	2	1	.....	.....	1
“ . 1880,	.....	.....	....	....	3	1	.....	.....	.....
“ . 1892,	4	3	3	....	4	....	4	.....	.....
Durham, . 1880,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1892,	.....	1	....	....	1	....	1	.....	.....
East Haddam, 1860,	.....	.....	....	....	....	7	.....	.....	4
“ “ 1880,	.....	.....	....	....	8	1	.....	.....	1
“ “ 1892,	1	10	....	....	11	....	9	.....	.....
Essex, . 1880,	.....	.....	....	....	3	....	.....	.....	.....
“ . 1892,	4	5	4	1	4	....	1	.....	.....
Middlefield, , 1880,	.....	.....	....	....	3	....	.....	.....	.....
“ . 1892,	3	3	1	....	5	....	3	.....	.....

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

MIDDLESEX COUNTY. (Concluded.)		Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
				Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Portland,	1860,	3	.....	....	...	....	3	....	....	....	....
"	1880,	4	.....	....	4	....	....	....	....	....	....
"	1892,	6	985	1	4	1	....	1	4	1	4
Saybrook,	1880,	4	.....	....	4	....	....	....	....	....	....
"	1892,	6	361	1	5	....	....	....	....	4	5
Totals,	1860,	31	.....	....	18	3	10	....	....	....	....
"	1880,	69	.....	....	55	8	6	1	3	....	....
"	1892,	124	6,509	18	93	11	2	8	16	62	85



TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONTINUED.

		NUMBER OF ESTAB- LISHMENTS.		METHODS OF PAYMENT.			PARTIAL PAYMENTS.			
MIDDLESEX COUNTY. (Concluded.)		In- corporated.	Not In- corporated.	Weekly.	Bi- Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Portland,	1860,	.....	.....	....	....	2	1	.....	.....	2
"	1880,	.....	.....	....	1	3	....	.....	.....	.....
"	1892,	6	.....	5	1	....	....	4	.....	.....
Saybrook,	1880,	.....	.....	....	....	3	1	.....	.....	.....
"	1892,	2	4	....	2	4	....	3	1	.....
Totals, .		.....	.....	....	....	11	20	.....	.....	12
"	1880,	.....	.....	4	3	54	8	.....	.....	1
"	1892,	41	83	41	12	70	1	47	2	.....

TABLE I.—HOURS OF LABOR.—BY TOWNS AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.—CONCLUDED.

TOLLAND COUNTY.		Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT-URDAY.		Employing Women.	Employing Minors.
				Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Tolland,	1880,	1	.....	....	1	....	....	....	....	....	....
"	1892,	1	25	....	1	....	....	....	....	....	1
Columbia,	1892,	1	72	....	...	1	....	1	....	1	1
Coventry,	1880,	4	.....	....	2	2	....	1	....	....	....
"	1892,	9	369	1	6	2	...	2	....	7	9
Hebron,	1860,	1	.....	....	...	1	....	1	....	....	....
"	1880,	1	.....	....	...	1	....	1	....	....	....
"	1892,	1	120	....	...	1	....	1	....	1	1
Mansfield,	1880,	2	.....	....	1	....	1	....	....	....	....
"	1892,	8	307	....	1	7	....	7	....	7	7
Somers,	1880,	1	.....	....	...	1	....	...	....	....	....
"	1892,	2	336	....	1	1	....	1	1	1	1
Stafford,	1860,	1	.....	....	...	...	1	....	....	....	....
"	1880,	8	.....	....	3	3	2	....	....	....	....
"	1892,	16	1,196	....	7	*9	....	7	1	12	13
Vernon,	1860,	6	.....	....	2	1	3	....	....	...	....
"	1880,	11	.....	....	3	8	....	....	....	....	....
"	1892,	19	2,968	1	7	10	1	10	1	15	15
Willington,	1880,	1	.....	....	...	1	....	....	....	....	....
"	1892,	2	145	....	...	2	....	2	....	2	2
Totals,	1860,	8	.....	....	2	2	4	1	....	....	....
"	1880,	29	.....	....	10	16	3	2	....	....	....
"	1892,	59	5,538	2	23	33	1	31	3	46	50

\*Two mills run sixty-five and a half hours a week for men.

TABLE I.—METHODS OF PAYMENT.—BY TOWNS AND ESTABLISHMENTS IN 1860, 1880 AND 1892.—CONCLUDED.

TOLLAND COUNTY.		NUMBER OF ESTABLISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
		In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Tolland,	1880,	.....	.....	1	.....	.....	.....	.....	.....	.....
"	1892,	1	.....	1	.....	.....	.....	.....	.....	.....
Columbia,	1892,	.....	1	.....	1	.....	.....	1	1	.....
Coventry,	1880,	.....	.....	.....	.....	4	.....	.....	.....	.....
"	1892,	2	7	1	2	6	.....	2	1	.....
Hebron,	1860,	.....	.....	.....	.....	1	.....	.....	.....	1
"	1880,	.....	.....	.....	.....	1	.....	.....	.....	1
"	1892,	.....	1	.....	.....	1	.....	1	1	1
Mansfield,	1880,	.....	.....	.....	.....	2	.....	.....	.....	1
"	1892,	1	7	.....	.....	8	.....	5	4	1
Somers,	1880,	.....	.....	.....	.....	1	.....	.....	.....	.....
"	1892,	1	1	1	.....	1	.....	1	2	.....
Stafford,	1860,	.....	.....	.....	.....	1	.....	.....	.....	.....
"	1880,	.....	.....	1	.....	7	.....	.....	.....	.....
"	1892,	8	8	6	.....	10	.....	12	4	.....
Vernon,	1860,	.....	.....	.....	.....	8	.....	.....	.....	.....
"	1880,	.....	.....	.....	.....	11	.....	.....	.....	.....
"	1892,	11	8	12	3	4	.....	9	2	.....
Willington,	1880,	.....	.....	.....	.....	1	.....	.....	.....	1
"	1892,	.....	2	.....	.....	2	.....	2	2	1
Totals,	1860,	.....	.....	.....	.....	8	.....	.....	.....	1
"	1880,	.....	.....	2	.....	27	.....	.....	.....	3
"	1892,	24	35	21	6	32	.....	33	17	3

TABLE II.—HOURS OF LABOR.—BY COUNTIES AND ESTABLISHMENTS, IN 1860, 1880 AND 1892.

COUNTIES.	Number of Establishments.	Total No. Employes.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.		Employing Women.	Employing Minors.
			Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.		
Hartford, . 1860,	54	.....	....	41	3	10	....	1	....	....
“ . 1880,	189	.....	6	152	21	10	1	22	....	....
“ . 1892,	372	28,774	27	297	31	17	9	90	154	248
New Haven, . 1860,	108	.....	2	100	5	1	....	18	....	....
“ “ . 1880,	306	.....	6	286	6	8	....	117	....	....
“ “ . 1892,	536	48,816	58	466	4	8	....	233	244	354
New London, . 1860,	14	.....	....	8	3	3	....	1	....	....
“ “ . 1880,	70	.....	....	42	24	4	7	2	....	....
“ “ . 1892,	128	13,067	8	82	34	4	32	14	60	96
Fairfield, . 1860,	55	.....	1	47	3	4	....	18	....	....
“ . 1880,	192	.....	4	175	7	6	....	84	....	....
“ . 1892,	409	31,214	33	363	10	3	2	229	199	322
Windham, . 1860,	1	.....	....	....	....	1	....	....	....	....
“ . 1880,	37	.....	....	4	26	7	3	....	....	....
“ . 1892,	76	11,354	....	13	59	4	59	1	58	61
Litchfield, . 1860,	38	.....	....	27	5	6	....	2	....	....
“ . 1880,	62	.....	....	50	6	6	....	2	....	....
“ . 1892,	97	7,997	1	86	2	8	2	16	54	80
Middlesex, . 1860,	31	.....	....	18	3	10	....	....	....	....
“ . 1880,	69	.....	....	55	8	6	1	3	....	....
“ . 1892,	124	6,509	18	93	11	2	8	16	62	85
Tolland, . 1860,	8	.....	....	2	2	4	1	....	....	....
“ . 1880,	29	.....	....	10	16	3	2	....	....	....
“ . 1892,	59	5,538	2	23	33	1	31	3	46	50
Total for State, 1860,	309	.....	3	243	24	39	1	40	....	....
“ “ “ 1880,	954	.....	16	774	114	50	14	230	....	....
“ “ “ 1892,	1,801	153,269	147	1,423	184	47	143	602	877	1,296

TABLE II.—METHODS OF PAYMENT.—BY COUNTIES AND ESTABLISHMENTS IN 1860, 1880 AND 1892.

COUNTIES.	NUMBER OF ESTABLISHMENTS.		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
	In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Hartford, . 1860,	.....	.....	11	2	34	7	.....	.....	4
“ . 1880,	.....	.....	46	11	117	15	.....	.....	7
“ . 1892,	140	232	254	21	81	16	102	20	4
New Haven, . 1860,	.....	.....	42	4	62	....	.....	.....	12
“ “ . 1880,	.....	.....	146	19	134	7	.....	.....	5
“ “ . 1892,	223	313	466	33	31	6	68	14	5
New London, . 1860,	.....	.....	2	1	6	5	.....	.....	2
“ “ . 1880,	.....	.....	12	5	53	....	.....	.....	6
“ “ . 1892,	48	80	67	15	46	....	45	18	3
Fairfield, . 1860,	.....	.....	26	10	14	5	.....	.....	3
“ . 1880,	.....	.....	94	55	34	9	.....	.....	2
“ . 1892,	132	277	315	77	9	8	42	1	2
Windham, . 1860,	.....	.....	....	....	1	....	.....	.....	.....
“ . 1880,	.....	.....	....	....	37	....	.....	.....	16
“ . 1892,	28	48	33	2	39	2	43	17	16
Litchfield, . 1860,	.....	.....	1	....	27	10	.....	.....	13
“ . 1880,	.....	.....	3	2	57	....	.....	.....	9
“ . 1892,	58	39	60	5	32	....	52	6	2
Middlesex, . 1860,	.....	.....	....	....	11	20	.....	.....	12
“ . 1880,	.....	.....	4	3	54	8	.....	.....	1
“ . 1892,	41	83	41	12	70	1	47	2	.....
Tolland, . 1860,	.....	.....	....	....	8	....	.....	.....	1
“ . 1880,	.....	.....	2	....	27	....	.....	.....	3
“ . 1892,	24	35	21	8	32	....	33	17	3
Total for State, 1860,	.....	.....	82	17	163	47	.....	.....	47
“ “ “ 1880,	.....	.....	307	95	513	39	.....	.....	49
“ “ “ 1892,	694	1,107	1,257	171	340	33	432	95	35



TABLE III.—HOURS OF LABOR.—BY COUNTIES AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.

IN PERCENTAGES.

COUNTY.	Number of Establishments.	DAILY HOURS OF LABOR.				SHORT DAY SAT- URDAY.	
		Between 9 and 10.	10	Over 10 to 11.	Over 11 to 12.	To make 60 hrs. a week.	Less than 60 hrs. a week.
Hartford, . . . . 1860,	54	.....	75.93	5.55	18.52	.....	1.85
“ . . . . 1880,	189	3.18	80.42	11.11	5.29	.53	11.64
“ . . . . 1892,	372	7.53	79.84	8.06	4.57	2.42	24.19
New Haven, . . . 1860,	108	1.85	92.59	4.63	.93	.....	16.67
“ . . . . 1880,	306	1.96	93.46	1.96	2.62	.....	38.24
“ . . . . 1892,	536	10.82	86.94	.75	1.49	.....	43.47
New London, . . 1860,	14	.....	57.14	21.43	21.43	.....	7.14
“ . . . . 1880,	70	.....	60.00	34.29	5.71	10.00	2.86
“ . . . . 1892,	128	6.25	64.06	26.56	3.13	25.00	10.94
Fairfield, . . . . 1860,	55	1.82	85.45	5.46	7.27	.....	32.73
“ . . . . 1880,	192	2.08	91.15	3.65	3.12	.....	48.96
“ . . . . 1892,	409	8.07	88.75	2.45	.73	.49	55.99
Windham, . . . . 1860,	1	.....	.....	.....	100.00	.....	.....
“ . . . . 1880,	37	.....	10.81	70.27	18.92	8.11	.....
“ . . . . 1892,	76	.....	17.11	77.63	5.26	77.63	1.32
Litchfield, . . . 1860,	38	.....	71.05	13.16	15.79	.....	5.26
“ . . . . 1880,	62	.....	80.64	9.68	9.68	.....	3.23
“ . . . . 1892,	97	1.03	86.60	2.06	10.31	2.06	15.46
Middlesex, . . . . 1860,	31	.....	58.06	9.68	32.26	.....	.....
“ . . . . 1880,	69	.....	79.71	11.59	8.70	1.45	4.35
“ . . . . 1892,	124	13.71	75.81	8.87	1.61	6.45	12.90
Tolland, . . . . 1860,	8	.....	25.00	25.00	50.00	12.50	.....
“ . . . . 1880,	29	.....	34.48	55.17	10.35	6.90	.....
“ . . . . 1892,	59	3.39	38.98	55.93	1.70	52.54	5.09
Total for State, . . 1860,	309	.97	78.64	7.77	12.62	.32	12.94
“ . . . . 1880,	954	1.68	81.13	11.95	5.24	1.47	24.11
“ . . . . 1892,	1,801	8.16	79.01	10.22	2.61	7.94	33.43

TABLE III.—METHODS OF PAYMENT.—BY COUNTIES AND ESTABLISHMENTS, IN 1860, 1880, AND 1892.

IN PERCENTAGES.

COUNTY.		NUMBER OF ESTABLISHMENTS,		METHODS OF PAYMENT.				PARTIAL PAYMENTS.		
		In-corporated.	Not In-corporated.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	In Rent.	In Board.	In Store Orders.
Hartford,	1860,	.....	.....	20.37	3.71	62.96	12.96	.....	.....	7.41
"	1880,	.....	.....	24.33	5.82	61.91	7.94	.....	.....	3.70
"	1892,	37.37	62.63	68.28	5.65	21.77	4.30	27.42	5.38	1.08
New Haven,	1860,	.....	.....	38.89	3.70	57.41	....	.....	.....	11.11
"	1880,	.....	.....	47.71	6.21	43.79	2.29	.....	.....	1.63
"	1892,	41.60	58.40	86.94	6.16	5.78	1.12	12.69	2.61	.93
New London,	1860,	.....	.....	14.29	7.14	42.86	35.71	.....	.....	14.29
"	1880,	.....	.....	17.14	7.14	75.72	....	.....	.....	8.57
"	1892,	37.50	62.50	52.34	11.72	35.94	....	34.37	14.06	2.34
Fairfield,	1860,	.....	.....	47.27	18.18	25.46	9.09	.....	.....	5.45
"	1880,	.....	.....	48.96	28.64	17.71	4.69	.....	.....	1.04
"	1892,	32.76	67.24	77.02	18.83	2.20	1.95	10.27	.24	.49
Windham,	1860,	.....	.....	....	....	100.00	....	.....	.....	.....
"	1880,	.....	.....	....	....	100.00	....	.....	.....	43.24
"	1892,	36.84	63.16	43.42	2.63	51.32	2.63	56.57	25.00	21.05
Litchfield,	1860,	.....	.....	2.63	....	71.05	26.32	.....	.....	34.21
"	1880,	.....	.....	4.84	3.23	91.93	....	.....	.....	14.52
"	1892,	60.82	39.18	61.86	5.15	32.99	....	53.61	6.18	2.06
Middlesex,	1860,	.....	.....	....	....	35.48	64.52	.....	.....	38.71
"	1880,	.....	.....	5.80	4.35	78.26	11.59	.....	.....	1.45
"	1892,	33.06	66.94	33.06	9.68	56.45	.81	37.90	1.61	.....
Tolland,	1860,	.....	.....	....	....	100.00	....	.....	.....	12.50
"	1880,	.....	.....	6.90	....	93.10	....	.....	.....	10.34
"	1892,	40.68	59.32	35.59	10.17	54.24	....	55.93	28.81	5.08
Total for State,	1860,	.....	.....	26.54	5.50	52.75	15.21	.....	.....	15.21
"	1880,	.....	.....	32.18	9.96	53.77	4.09	.....	.....	5.14
"	1892,	38.53	61.47	69.79	9.50	18.88	1.83	23.99	5.29	1.84

TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS.

(The figures are percentages.)

## ARMS AND AMMUNITION.

COUNTIES.	1860			1880.			1892.			
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours.	Short time Saturday.
Hartford,	33.33	66.67	....	33.33	66.67	....	.....	100.00	....	50.00
New Haven,	.....	.....	....	.....	100.00	25.00	.....	100.00	....	66.67
N. London,	.....	.....	....	.....	.....	....	.....	100.00	....	100.00
Fairfield,	.....	.....	....	.....	100.00	100.00	.....	100.00	....	100.00
Middlesex,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Tolland,	.....	.....	....	.....	.....	....	.....	100.00	....	.....

## BOOTS AND SHOES AND LEATHER GOODS.

Hartford,	.....	100.00	....	.....	100.00	....	.....	100.00	....	14.29
New Haven,	.....	100.00	33.33	.....	100.00	33.33	.....	100.00	....	54.55
N. London,	.....	.....	....	.....	100.00	....	.....	100.00	....	33.33
Fairfield,	.....	100.00	100.00	10.00	90.00	50.00	.....	88.89	11.11	61.11
Windham,	.....	.....	....	100.00	.....	100.00	57.14	42.86	....	57.14
Litchfield,	.....	100.00	....	.....	100.00	....	.....	100.00	....	50.00
Tolland,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....

## BRASS AND BRASS GOODS.

Hartford,	.....	.....	....	.....	100.00	40.00	.....	92.31	7.69	46.15
New Haven,	.....	100.00	17.65	.....	100.00	37.14	.....	98.00	2.00	42.00
N. London,	.....	.....	....	.....	.....	....	.....	100.00	....	.....
Fairfield,	.....	100.00	100.00	.....	100.00	57.14	.....	100.00	....	72.22
Litchfield,	33.33	66.67	33.33	.....	100.00	33.33	.....	100.00	....	40.00
Middlesex,	.....	100.00	....	.....	100.00	....	.....	90.00	10.00	.....

TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.

(The figures are percentages.)

## ARMS AND AMMUNITION.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	‡Monthly.	Weekly.	Bi-weekly.	‡Monthly.
Hartford, .	.....	100.00	.....	.....	.....	100.00	50.00	.....	50.00
New Haven,	.....	.....	.....	25.00	25.00	50.00	83.33	.....	16.67
New London,	.....	.....	.....	.....	.....	.....	66.67	.....	33.33
Fairfield, .	.....	.....	.....	50.00	50.00	.....	100.00	.....	.....
Middlesex, .	.....	.....	.....	.....	.....	100.00	.....	.....	100.00
Tolland, .	.....	.....	.....	.....	.....	.....	.....	100.00	.....

## BOOTS AND SHOES AND LEATHER GOODS.

Hartford, .	66.67	.....	33.33	40.00	60.00	.....	71.42	14.29	14.29
New Haven,	100.00	.....	.....	50.00	16.67	33.33	81.82	9.09	9.09
New London,	.....	.....	.....	.....	100.00	.....	66.67	33.33	.....
Fairfield, .	100.00	.....	.....	80.00	10.00	10.00	88.89	11.11	.....
Windham, .	.....	.....	.....	.....	.....	100.00	71.43	.....	28.57
Litchfield, .	.....	100.00	.....	.....	.....	100.00	50.00	.....	50.00
Tolland, .	.....	.....	.....	100.00	.....	.....	100.00	.....	.....

## BRASS AND BRASS GOODS.

Hartford, .	.....	.....	.....	20.00	20.00	60.00	84.62	7.69	7.69
New Haven,	11.76	88.24	.....	31.43	5.71	62.86	96.00	2.00	2.00
New London,	.....	.....	.....	.....	.....	.....	100.00	.....	.....
Fairfield, .	100.00	.....	.....	28.57	42.86	28.57	94.44	5.56	.....
Litchfield, .	.....	33.33	66.67	33.33	.....	66.67	80.00	.....	20.00
Middlesex, .	.....	33.33	66.67	.....	.....	100.00	20.00	10.00	70.00

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.

TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS—CONTINUED.

(The figures are percentages.)

## BREWERIES AND DISTILLERIES.

COUNTIES.	1860.			1880.			1892.			
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours.	Short time Saturday.
Hartford,	100.00	.....	....	.....	100.00	....	.....	100.00	....	.....
New Haven,	100.00	.....	....	60.00	40.00	....	11.11	88.89	....	.....
Fairfield,	100.00	.....	....	50.00	50.00	50.00	.....	100.00	....	50.00

## BRICK.

Hartford,	100.00	.....	....	80.00	20.00	....	58.62	37.93	3.45	3.45
New Haven,	.....	.....	....	100.00	.....	....	88.89	11.11	....	.....
Fairfield,	.....	.....	....	.....	100.00	50.00	.....	100.00	....	100.00
Windham,	.....	.....	....	.....	.....	....	.....	100.00	....	.....
Litchfield,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Middlesex,	.....	.....	....	100.00	.....	....	100.00	.....	....	.....

## CARRIAGES AND CARRIAGE PARTS.

Hartford,	.....	100.00	....	.....	100.00	....	.....	100.00	....	.....
New Haven,	.....	100.00	25.00	.....	100.00	37.14	.....	96.23	3.77	32.08
N. London,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Fairfield,	.....	100.00	71.43	.....	100.00	61.11	.....	100.00	....	72.00
Windham,	.....	.....	....	.....	.....	....	50.00	50.00	....	50.00
Litchfield,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Middlesex,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Tolland,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....

## CLOCKS, WATCHES AND TOYS.

Hartford,	.....	100.00	....	.....	100.00	....	.....	100.00	....	.....
New Haven,	.....	100.00	....	.....	100.00	60.00	.....	85.71	14.29	42.86
Fairfield,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Litchfield,	.....	100.00	....	.....	100.00	....	.....	100.00	....	.....
Middlesex,	.....	100.00	....	.....	100.00	....	.....	100.00	....	.....



TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## BREWERIES AND DISTILLERIES.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	†Monthly.	Weekly.	Bi-weekly.	†Monthly.
Hartford, .	.....	100.00	.....	.....	.....	100.00	83.33	.....	16.67
New Haven,	.....	100.00	.....	40.00	.....	60.00	88.89	.....	11.11
Fairfield, .	.....	100.00	.....	50.00	.....	50.00	100.00	.....	.....

## BRICK.

Hartford, .	.....	.....	100.00	.....	.....	100.00	3.45	.....	96.55
New Haven,	.....	.....	.....	.....	.....	100.00	11.11	.....	88.89
Fairfield, .	.....	.....	.....	.....	100.00	.....	.....	100.00	.....
Windham, .	.....	.....	.....	.....	.....	.....	.....	100.00	.....
Litchfield, .	.....	.....	.....	.....	.....	100.00	.....	.....	100.00
Middlesex, .	.....	.....	.....	.....	.....	100.00	.....	.....	100.00

## CARRIAGES AND CARRIAGE PARTS.

Hartford, .	33.33	33.33	33.34	33.33	.....	66.67	63.64	.....	36.36
New Haven,	87.50	12.50	.....	80.00	2.86	17.14	100.00	.....	.....
New London,	.....	.....	.....	.....	.....	100.00	33.33	.....	66.67
Fairfield, .	71.42	14.29	14.29	77.78	11.11	11.11	92.00	.....	8.00
Windham, .	.....	.....	.....	.....	.....	.....	50.00	.....	50.00
Litchfield, .	.....	.....	.....	.....	.....	100.00	100.00	.....	.....
Middlesex, .	.....	.....	.....	.....	.....	100.00	100.00	.....	.....
Tolland, .	.....	.....	.....	.....	.....	100.00	.....	100.00	.....

## CLOCKS, WATCHES AND TOYS.

Hartford, .	.....	100.00	.....	.....	.....	100.00	60.00	.....	40.00
New Haven,	.....	100.00	.....	40.00	.....	60.00	100.00	.....	.....
Fairfield, .	.....	.....	.....	.....	.....	100.00	100.00	.....	.....
Litchfield, .	.....	50.00	50.00	.....	.....	100.00	33.33	.....	66.67
Middlesex, .	.....	100.00	.....	.....	.....	100.00	.....	.....	100.00

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.

TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS.—CONTINUED.  
(The figures are percentages.)  
CORSETS AND CORSET MATERIALS.

COUNTIES.	1860.			1880.			1892.			
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours.	Short time Saturday.
New Haven,	.....	100.00	50.00	.....	100.00	57.14	.....	100.00	....	60.00
Fairfield,	.....	.....	....	.....	100.00	66.67	.....	81.82	18.18	72.73

## COTTON GOODS.

Hartford,	.....	.....	....	.....	.....	....	50.00	50.00	....	50.00
N. London,	100.00	.....	..	81.25	18.75	12.50	63.16	36.84	....	63.16
Fairfield,	100.00	.....	....	50.00	50.00	....	.....	100.00	....	.....
Windham,	.....	.....	....	100.00	.....	84.21	100.00	.....	....	92.31
Litchfield,	100.00	.....	....	66.67	33.33	....	.....	100.00	....	.....
Middlesex,	100.00	.....	25.00	100.00	.....	50.00	50.00	50.00	....	50.00
Tolland,	.....	.....	....	100.00	.....	33.33	83.33	16.67	....	83.33

## CUTLERY AND TOOLS.

Hartford,	.....	100.00	....	.....	100.00	30.00	.....	100.00	....	42.11
New Haven,	.....	100.00	....	.....	100.00	53.85	.....	90.00	10.00	45.00
N. London,	.....	.....	....	.....	100.00	....	50.00	50.00	....	100.00
Fairfield,	.....	100.00	....	.....	100.00	50.00	.....	93.33	6.67	66.67
Windham,	.....	.....	....	.....	.....	....	100.00	.....	....	100.00
Litchfield,	.....	100.00	....	.....	100.00	10.00	.....	100.00	....	6.67
Middlesex,	.....	100.00	....	.....	100.00	....	.....	100.00	....	14.29

## ELECTRICAL GOODS.

Hartford,	.....	.....	....	.....	.....	....	.....	85.71	14.29	.....
New Haven,	.....	.....	....	.....	.....	....	.....	100.00	....	71.43
Fairfield,	.....	.....	....	.....	....	....	.....	100.00	....	100.00
Middlesex,	.....	.....	....	.....	.....	....	.....	100.00	....	100.00

TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## CORSETS AND CORSET MATERIALS.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	†Monthly.	Weekly.	Bi-Weekly.	†Monthly.
New Haven,	50.00	50.00	.....	28.57	28.57	42.86	50.00	40.00	10.00
Fairfield, .	.....	.....	.....	50.00	33.33	16.67	81.82	18.18	.....

## COTTON GOODS.

Hartford, .	.....	.....	.....	.....	.....	.....	50.00	.....	50.00
New London,	.....	100.00	.....	.....	.....	100.00	78.94	10.53	10.53
Fairfield, .	.....	100.00	.....	.....	.....	100.00	50.00	50.00	.....
Windham, .	.....	.....	.....	.....	.....	100.00	53.85	.....	46.15
Litchfield, .	.....	.....	100.00	.....	.....	100.00	25.00	.....	75.00
Middlesex, .	.....	12.50	87.50	.....	.....	100.00	30.00	.....	70.00
Tolland, .	.....	.....	.....	.....	.....	100.00	33.33	16.67	50.00

## CUTLERY AND TOOLS.

Hartford, .	.....	100.00	.....	20.00	.....	80.00	73.68	10.53	15.79
New Haven,	33.33	66.67	.....	30.77	7.69	61.54	75.00	10.00	15.00
New London,	.....	.....	.....	100.00	.....	.....	100.00	.....	.....
Fairfield, .	50.00	50.00	.....	75.00	.....	25.00	93.33	.....	6.67
Windham, .	.....	.....	.....	.....	.....	.....	100.00	.....	.....
Litchfield, .	.....	85.71	14.29	.....	.....	100.00	60.00	6.67	33.33
Middlesex, .	.....	.....	100.00	.....	.....	100.00	14.29	14.29	71.42

## ELECTRICAL GOODS.

Hartford, .	.....	.....	.....	.....	.....	.....	85.71	.....	14.29
New Haven,	.....	.....	.....	.....	.....	.....	85.71	.....	14.29
Fairfield, .	.....	.....	.....	.....	.....	.....	100.00	.....	.....
Middlesex, .	.....	.....	.....	.....	.....	.....	100.00	.....	.....

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.

TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## GENERAL HARDWARE.

COUNTIES.	1860.			1880.			1892.			
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours.	Short time Saturday.
Hartford,	.....	100.00	....	.....	100.00	....	.....	91.67	8.33	21.56
New Haven,	.....	100.00	9.82	.....	100.00	42.86	.....	93.33	6.67	55.55
N. London,	.....	.....	....	.....	.....	....	.....	100.00	....	100.00
Fairfield,	.....	100.00	33.33	.....	100.00	58.33	4.55	90.90	4.55	77.27
Windham,	.....	.....	....	.....	.....	....	.....	100.00	....	.....
Litchfield,	.....	100.00	....	.....	100.00	....	.....	100.00	....	10.00
Middlesex,	.....	100.00	....	.....	100.00	....	.....	91.67	8.33	8.33

## HATS AND HAT MATERIALS.

Hartford,	.....	.....	....	.....	100.00	....	.....	100.00	...	.....
Fairfield,	12.50	87.50	....	11.11	88.89	14.81	1.35	90.54	8.10	31.08
Litchfield,	.....	.....	....	.....	100.00	....	... ..	100.00	....	....

## IRON AND STEEL.

Hartford,	.....	100.00	11.11	.....	100.00	26.92	3.18	93.64	3.18	46.03
New Haven,	.....	100.00	7.68	.....	100.00	38.46	.....	94.52	5.48	38.35
N. London,	50.00	50.00	....	16.67	83.33	16.67	12.50	83.33	4.17	20.83
Fairfield,	.....	100.00	50.00	.....	100.00	56.00	1.85	94.44	3.71	64.81
Windham,	.....	.....	....	.....	100.00	....	60.00	40.00	....	60.00
Litchfield,	66.67	33.33	....	63.63	36.37	....	31.25	68.75	....	18.75
Middlesex,	.....	100.00	....	.....	100.00	....	6.25	75.00	18.75	12.50
Tolland,	.....	.....	....	.....	100.00	....	.....	100.00	....	16.67

TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## GENERAL HARDWARE.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	†Monthly.	Weekly.	Bi-weekly.	†Monthly.
Hartford, .	.....	100.00	.....	11.11	.....	88.89	52.77	16.67	30.56
New Haven, .	54.55	45.45	.....	46.43	.....	53.57	84.45	4.44	11.11
New London, .	.....	.....	.....	.....	.....	.....	50.00	.....	50.00
Fairfield, .	66.67	33.33	.....	25.00	41.67	33.33	81.82	13.64	4.54
Windham, .	.....	.....	.....	.....	.....	.....	100.00	.....	.....
Litchfield, .	.....	83.33	16.67	.....	.....	100.00	70.00	.....	30.00
Middlesex, .	.....	50.00	50.00	12.50	.....	87.50	25.00	8.33	66.67

## HATS AND HAT MATERIALS.

Hartford, .	.....	.....	.....	100.00	.....	.....	100.00	.....	.....
Fairfield, .	75.00	12.50	12.50	25.93	70.37	3.70	37.84	62.16	.....
Litchfield, .	.....	.....	.....	.....	100.00	.....	50.00	50.00	.....

## IRON AND STEEL.

Hartford, .	.....	100.00	.....	15.38	.....	84.62	77.78	9.52	12.70
New Haven, .	30.78	69.22	.....	58.98	7.69	33.33	89.04	5.48	5.48
New London, .	.....	50.00	50.00	16.67	.....	83.33	66.67	4.17	29.16
Fairfield, .	66.67	33.33	.....	56.00	12.00	32.00	90.74	3.70	5.56
Windham, .	.....	.....	.....	.....	.....	100.00	40.00	.....	30.00
Litchfield, .	.....	75.00	25.00	.....	.....	100.00	75.00	.....	25.00
Middlesex, .	.....	50.00	50.00	.....	11.11	88.89	25.00	18.75	56.25
Tolland, .	.....	.....	.....	.....	.....	100.00	3.333	.....	66.67

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.



TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS—CONTINUED.  
(The figures are percentages.)

## PAPER MILLS.

COUNTIES.	1860.			1880.			1892.			
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours.	Short time Saturday.
Hartford,	100.00	.....	....	71.43	28.57	....	75.00	25.00	....	.....
New Haven,	100.00	.....	....	66.67	33.33	....	66.67	33.33	....	.....
N. London,	66.67	33.33	33.33	80.00	20.00	20.00	85.71	14.29	....	14.29
Fairfield,	.....	.....	....	100.00	.....	....	71.43	28.57	....	28.57
Windham,	100.00	.....	....	100.00	.....	....	100.00	.....	....	.....
Litchfield,	.....	.....	....	.....	.....	....	.....	100.00	....	.....
Middlesex,	.....	.....	....	.....	.....	....	100.00	.....	....	.....
Tolland,	.....	.....	....	.....	.....	....	100.00	.....	....	.....

## PAPER BOXES, BAGS AND ENVELOPES.

Hartford,	.....	.....	....	.....	100.00	....	.....	100.00	....	22.22
New Haven,	.....	.....	....	.....	100.00	50.00	.....	100.00	....	53.33
N. London,	.....	.....	....	.....	.....	....	100.00	.....	....	100.00
Fairfield,	.....	100.00	....	.....	100.00	16.67	.....	90.00	10.00	20.00
Windham,	.....	.....	....	.....	.....	....	100.00	.....	....	100.00
Litchfield,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Middlesex,	.....	100.00	....	.....	100.00	....	.....	100.00	....	.....
Tolland,	100.00	.....	....	100.00	.....	....	33.33	.....	66.67	33.33

## PIANOS AND ORGANS.

New Haven,	.....	100.00	....	.....	100.00	25.00	.....	100.00	....	40.00
Fairfield,	.....	.....	....	.....	100.00	100.00	.....	100.00	....	66.67
Middlesex,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....
Tolland,	.....	.....	....	.....	100.00	....	.....	100.00	....	.....

TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## PAPER MILLS.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	†Monthly.	Weekly.	Bi-weekly.	†Monthly.
Hartford, .	.....	50.00	50.00	.....	.....	100.00	42.86	.....	57.14
New Haven, .	50.00	50.00	.....	33.33	.....	66.67	33.33	66.67	.....
New London, .	.....	66.67	33.33	.....	.....	100.00	28.57	.....	71.43
Fairfield, .	.....	.....	.....	66.67	33.33	.....	85.71	14.29	.....
Windham, .	.....	100.00	.....	.....	.....	100.00	.....	.....	100.00
Litchfield, .	.....	.....	.....	.....	.....	.....	100.00	.....	.....
Middlesex, .	.....	.....	.....	.....	.....	.....	.....	.....	100.00
Tolland, .	.....	.....	.....	.....	.....	.....	.....	.....	100.00

## PAPER BOXES, BAGS AND ENVELOPES.

Hartford, .	.....	.....	.....	40.00	.....	60.00	66.67	.....	33.33
New Haven, .	.....	.....	.....	40.00	10.00	50.00	66.67	26.67	6.66
N. London, .	.....	.....	.....	.....	.....	.....	50.00	50.00	.....
Fairfield, .	100.00	.....	.....	50.00	50.00	.....	60.00	40.00	.....
Windham, .	.....	.....	.....	.....	.....	.....	.....	50.00	50.00
Litchfield, .	.....	.....	.....	.....	100.00	.....	.....	100.00	.....
Middlesex, .	.....	.....	100.00	.....	.....	100.00	.....	.....	100.00
Tolland, .	.....	100.00	.....	.....	.....	100.00	.....	33.33	66.67

## PIANOS AND ORGANS.

New Haven, .	100.00	.....	.....	75.00	.....	25.00	100.00	.....	.....
Fairfield, .	.....	.....	.....	.....	.....	100.00	100.00	.....	.....
Middlesex, .	.....	.....	.....	.....	.....	100.00	.....	.....	100.00
Tolland, .	.....	.....	.....	.....	.....	100.00	.....	.....	100.00

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.

TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## PRINTING AND BOOKBINDING.

COUNTIES.	1860.			1880.			1892.			
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours.	Short time Saturday.
Hartford,	.....	100.00	....	.....	100.00	29.41	.....	85.71	14.29	50.00
New Haven,	.....	100.00	....	.....	100.00	35.71	.....	89.19	10.81	54.05
N. London,	.....	100.00	....	.....	100.00	....	.....	100.00	....	.....
Fairfield,	.....	100.00	50.00	.....	100.00	62.50	4.55	86.36	9.09	59.09
Litchfield,	.....	100.00	100.00	.....	100.00	50.00	.....	100.00	....	100.00
Middlesex,	.....	.....	....	.....	100.00	50.00	.....	100.00	....	100.00

## RUBBER GOODS.

Hartford,	.....	.....	....	.....	.....	....	.....	100.00	....	.....
New Haven,	.....	100.00	....	.....	100.00	28.57	.....	90.91	9.09	36.36
N. London,	.....	.....	....	.....	.....	....	.....	100.00	....	.....
Fairfield,	.....	100.00	....	.....	100.00	50.00	.....	100.00	....	66.67
Middlesex,	.....	.....	....	.....	.....	....	.....	100.00	....	100.00

## SILK, KNIT GOODS AND OTHER TEXTILES (EXCEPT COTTON AND WOOL).

Hartford,	44.44	55.56	....	25.00	75.00	25.00	28.57	71.43	....	42.86
New Haven,	50.00	50.00	....	18.18	81.82	9.09	... ..	68.75	31.25	18.75
N. London,	.....	.....	....	66.67	33.33	33.33	57.14	42.86	....	57.14
Fairfield,	.....	100.00	66.67	9.09	90.91	63.64	.....	94.12	5.88	76.47
Windham,	.....	.....	....	100.00	.....	100.00	100.00	.....	....	100.00
Litchfield,	33.33	66.67	....	25.00	75.00	....	22.22	77.78	....	44.44
Middlesex,	.....	.....	....	.....	100.00	100.00	50.00	50.00	....	100.00
Tolland,	50.00	50.00	....	60.00	40.00	....	81.82	18.18	....	81.82

TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## PRINTING AND BOOKBINDING.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	†Monthly.	Weekly.	Bi-weekly.	†Monthly.
Hartford, .	83.33	16.67	.....	58.82	23.53	17.65	92.86	3.57	3.57
New Haven,	66.67	33.33	.....	78.57	.....	21.43	94.59	5.41	.....
New London,	100.00	.....	.....	50.00	50.00	.....	66.67	33.33	.....
Fairfield, .	100.00	.....	.....	87.50	12.50	.....	100.00	.....	.....
Litchfield, .	.....	100.00	.....	50.00	.....	50.00	50.00	.....	50.00
Middlesex, .	.....	.....	.....	100.00	.....	.....	100.00	.....	.....

## RUBBER GOODS.

Hartford, .	.....	.....	.....	.....	.....	100.00	.....	.....
New Haven,	.....	100.00	.....	42.86	.....	57.14	90.91	.....
New London,	.....	.....	.....	.....	.....	.....	100.00	.....
Fairfield, .	.....	100.00	.....	50.00	.....	50.00	100.00	.....
Middlesex,	.....	.....	.....	.....	.....	.....	100.00	.....

## SILK, KNIT GOODS AND OTHER TEXTILES (EXCEPT COTTON AND WOOL).

Hartford, .	.....	88.89	11.11	.....	12.50	87.50	76.19	9.52	14.29
New Haven,	25.00	75.00	.....	27.27	9.09	63.64	81.25	.....	18.75
New London,	.....	.....	.....	33.33	.....	66.67	28.57	57.14	14.29
Fairfield, .	66.67	33.33	.....	45.46	18.18	36.36	76.47	11.77	11.76
Windham, .	.....	.....	.....	.....	.....	100.00	42.86	.....	57.14
Litchfield, .	.....	100.00	.....	.....	.....	100.00	77.78	.....	22.22
Middlesex, .	.....	.....	.....	.....	.....	100.00	50.00	.....	50.00
Tolland, .	.....	100.00	.....	.....	.....	100.00	18.18	.....	81.82

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.

TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS.—CONTINUED.  
(The figures are percentages.)

## SILVERWARE.

COUNTIES.	1860.			1880.			1892.		
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours. Short time Saturday.
Hartford,	.....	100.00	....	.....	100.00	33.33	.....	100.00	.... 33.33
New Haven,	.....	100.00	33.33	.....	100.00	69.23	.....	100.00	.... 68.42
Fairfield,	.....	.....	....	.....	100.00	....	.....	100.00	.... 50.00
Middlesex,	.....	100.00	....	.....	100.00	50.00	.....	33.33	66.67 .....

## STONE-CUTTING AND QUARRYING.

Hartford,	.....	.....	....	.....	100.00	....	.....	75.00	25.00	.....
New Haven,	.....	100.00	50.00	.....	100.00	72.73	.....	28.57	71.43	90.48
N. London,	.....	.....	....	.....	100.00	33.33	.....	22.22	77.78	44.44
Fairfield,	.....	100.00	50.00	.....	100.00	60.00	.....	64.29	35.71	57.14
Windham,	.....	.....	....	.....	.....	....	.....	100.00	....	.....
Litchfield,	.....	.....	....	.....	100.00	....	.....	50.00	50.00	50.00
Middlesex,	100.00	.....	....	.....	100.00	....	.....	42.86	57.14	57.15
Tolland,	.....	.....	....	.....	.....	....	.....	100.00	....	100.00

## WOOD-WORKING.

Hartford,	.....	100.00	....	.....	100.00	10.00	... ..	58.62	41.38	24.14
New Haven,	.....	100.00	16.67	.....	100.00	28.00	.....	78.05	21.95	39.03
N. London,	.....	100.00	....	16.67	83.33	16.67	12.50	87.50	....	12.50
Fairfield,	.....	100.00	....	.....	100.00	27.27	.....	84.00	16.00	64.00
Windham,	.....	.....	....	33.33	66.67	33.33	50.00	50.00	....	50.00
Litchfield,	.....	100.00	....	.....	100.00	....	.....	100.00	....	.....
Middlesex,	.....	.....	....	....	100.00	....	.....	62.50	37.50	.....



TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.—CONTINUED.

(The figures are percentages.)

## SILVERWARE.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	†Monthly.	Weekly.	Bi-weekly.	†Monthly.
Hartford, .	100.00	.....	.....	33.33	.....	66.67	88.89	.....	11.11
New Haven, .	.....	100.00	.....	30.77	.....	69.23	100.00	.....	.....
Fairfield, .	.....	.....	.....	.....	100.00	.....	100.00	.....	.....
Middlesex, .	.....	.....	100.00	.....	.....	100.00	33.33	.....	66.67

## STONE-CUTTING AND QUARRYING.

Hartford, .	.....	.....	.....	.....	.....	100.00	75.00	.....	25.00
New Haven, .	100.00	.....	.....	27.27	54.55	18.18	61.91	33.33	4.76
New London, .	.....	.....	.....	33.33	.....	66.67	.....	22.22	77.78
Fairfield, .	100.00	.....	.....	70.00	30.00	.....	64.29	35.71	.....
Windham, .	.....	.....	.....	.....	.....	.....	.....	.....	100.00
Litchfield, .	.....	.....	.....	.....	.....	100.00	.....	50.00	50.00
Middlesex .	.....	66.67	33.33	.....	20.00	80.00	64.29	21.43	14.28
Tolland, .	.....	.....	.....	.....	.....	.....	.....	.....	100.00

## WOOD-WORKING.

Hartford, .	100.00	.....	.....	60.00	10.00	30.00	79.31	3.45	17.24
New Haven, .	41.67	58.33	.....	52.00	.....	48.00	90.24	2.44	7.32
New London, .	25.00	.....	75.00	66.66	16.67	16.67	62.50	12.50	25.00
Fairfield, .	66.67	.....	33.33	45.46	36.36	18.18	84.00	12.00	4.00
Windham, .	.....	.....	.....	.....	.....	100.00	16.67	.....	83.33
Litchfield, .	.....	100.00	.....	.....	.....	100.00	62.50	.....	37.50
Middlesex, .	.....	.....	.....	.....	.....	100.00	37.50	12.50	50.00

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.

TABLE IV.—HOURS OF LABOR.—BY COUNTIES, INDUSTRIES,  
AND ESTABLISHMENTS—CONCLUDED.

(The figures are percentages.)

## WOOLEN GOODS.

COUNTIES.	1860.			1880.			1892.			
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours.	Short time Saturday.
Hartford,	100.00	.....	....	57.14	42.86	....	.....	100.00	....	11.11
New Haven.	100.00	.....	....	100.00	.....	....	.....	100.00	....	.....
N. London,	100.00	.....	....	61.54	38.46	23.08	43.75	56.25	....	43.75
Fairfield,	100.00	.....	....	50.00	50.00	33.33	42.86	57.14	....	71.43
Windham,	.....	.....	....	100.00	.....	44.44	100.00	.....	....	100.00
Litchfield,	100.00	.....	....	.....	100.00	....	.....	100.00	....	.....
Middlesex,	.....	.....	....	.....	.....	....	100.00	.....	....	100.00
Tolland, .	100.00	.....	....	92.31	7.69	30.76	70.83	29.17	....	70.83

## MISCELLANEOUS.

Hartford,	33.33	66.67	....	.....	100.00	17.65	3.33	90.00	6.67	23.33
New Haven,	.....	100.00	37.50	.....	100.00	37.46	1.54	81.54	16.92	36.92
N. London,	.....	.....	....	.....	100.00	....	11.11	88.89	....	11.11
Fairfield,	25.00	75.00	25.00	.....	100.00	33.33	2.50	82.50	15.00	50.00
Windham,	.....	.....	....	.....	.....	....	80.00	20.00	....	80.00
Litchfield,	.....	100.00	....	50.00	50.00	....	25.00	75.00	....	25.00
Middlesex,	66.67	33.33	....	16.67	83.33	....	4.55	95.45	....	.....
Tolland,	.....	100.00	....	.....	100.00	....	50.00	50.00	....	50.00

TABLE IV.—METHODS OF PAYMENT.—BY COUNTIES, INDUSTRIES, AND ESTABLISHMENTS.—CONCLUDED.

(The figures are percentages.)

## WOOLEN GOODS.

COUNTIES.	1860.			1880.			1892.		
	*Weekly.	Monthly.	†Irregular.	Weekly.	Bi-weekly.	†Monthly.	Weekly.	Bi-weekly.	†Monthly.
Hartford, .	.....	100.00	.....	.....	.....	100.00	66.67	.....	33.33
New Haven, .	.....	100.00	.....	.....	.....	100.00	100.00	.....	.....
New London, .	.....	100.00	.....	.....	7.69	92.31	31.25	6.25	62.50
Fairfield, .	.....	100.00	.....	.....	33.33	66.67	57.14	28.57	14.29
Windham, .	.....	.....	.....	.....	.....	100.00	27.27	.....	72.73
Litchfield, .	.....	50.00	50.00	.....	.....	100.00	33.33	.....	66.67
Middlesex, .	.....	.....	.....	.....	.....	.....	.....	.....	100.00
Tolland, .	.....	100.00	.....	.....	.....	100.00	50.00	8.33	41.67

## MISCELLANEOUS.

Hartford, .	50.00	16.67	33.33	70.59	.....	29.41	93.34	3.33	3.33
New Haven, .	25.00	75.00	.....	50.00	.....	50.00	92.31	4.62	3.07
New London, .	.....	.....	.....	50.00	.....	50.00	50.00	5.56	44.44
Fairfield, .	50.00	25.00	25.00	53.33	.....	46.67	82.50	2.50	15.00
Windham, .	.....	.....	.....	.....	.....	.....	40.00	.....	60.00
Litchfield, .	100.00	.....	.....	25.00	.....	75.00	66.67	8.33	25.00
Middlesex, .	.....	33.33	66.67	8.33	8.33	83.34	36.36	4.55	59.09
Tolland, .	.....	100.00	.....	50.00	.....	50.00	100.00	.....	.....

\*Bi-weekly in 1860 with weekly.

†Quarterly in 1860 with irregular.

‡Irregular in 1880 and 1892 with monthly.

TABLE V.—HOURS OF LABOR, IN THE STATE, BY INDUSTRIES.  
(The figures are percentages.)

INDUSTRIES.	1860.			1880.			1892.			
	Over 10 hrs.	10 hours.	Short time Saturday.	Over 10 hrs.	10 hours.	Short time Saturday.	Over 10 hrs.	10 hours.	Under 10 hrs.	Short time Saturday.
Arms and Ammunition,	33.33	66.67	....	10.00	90.00	30.00	....	100.00	....	61.11
Boots, Shoes, and Leather Goods, . . }	....	100.00	33.33	8.00	92.00	32.00	8.16	87.76	4.08	48.98
Brass and Brass Goods,	4.17	95.83	20.83	....	100.00	37.04	....	96.90	3.10	43.30
Breweries and Distilleries, . . }	100.00	....	....	40.00	60.00	10.00	5.88	94.12	....	5.88
Brick, . . . . .	100.00	....	....	76.00	24.00	4.00	62.22	35.56	2.22	6.67
Carriages and Carriage Parts, . . }	....	100.00	34.62	....	100.00	35.82	1.01	96.97	2.02	36.36
Clocks, Watches, and Toys, . . . . .	....	100.00	....	....	100.00	21.43	....	94.11	5.89	17.65
Corsets and Corset Materials, . . . . }	....	100.00	50.00	....	100.00	61.54	....	90.48	9.52	66.67
Cotton Goods, . . . . .	100.00	....	15.33	90.57	9.43	45.28	71.01	28.99	....	68.12
Cutlery and Tools, . . . . .	....	100.00	....	....	100.00	30.23	1.27	93.67	5.06	40.51
Electrical Goods, . . . . .	....	....	....	....	....	....	....	95.24	4.76	57.14
General Hardware, . . . . .	....	100.00	6.90	....	100.00	25.33	0.78	92.97	6.25	42.19
Hats and Hat Materials, . . . . }	12.50	87.50	....	10.34	89.66	13.79	1.30	90.91	7.79	28.57
Iron and Steel, . . . . .	16.67	83.33	11.90	7.14	92.86	30.16	5.84	89.49	4.67	41.25
Paper Mills, . . . . .	87.50	12.50	12.50	76.92	23.08	3.85	75.51	24.49	....	6.12
Paper Boxes, Bags, and Envelopes, . . }	33.33	66.67	....	4.00	96.00	24.00	10.87	82.61	6.52	36.96
Pianos and Organs, . . . . .	....	100.00	....	....	100.00	28.57	....	100.00	....	40.00
Printing and Book-binding, . . . }	....	100.00	14.29	....	100.00	37.78	1.06	88.30	10.64	54.26
Rubber Goods, . . . . .	....	100.00	....	....	100.00	33.33	....	95.24	4.76	42.86
Silk, Knit Goods, Etc.,	38.10	61.90	9.52	28.30	71.70	30.19	32.22	61.11	6.67	56.67
Silverware, . . . . .	....	100.00	20.00	....	100.00	57.89	....	94.59	5.41	51.35
Stone-cutting and Quarrying, . . . }	33.33	66.67	33.33	....	100.00	46.87	....	44.78	55.22	62.69
Wood-working, . . . . .	....	100.00	9.09	3.23	96.77	20.97	3.20	74.40	22.40	34.40
Woolen Goods, . . . . .	100.00	....	....	73.08	26.92	25.00	54.05	45.95	....	56.76
Miscellaneous, . . . . .	22.22	77.78	18.52	5.00	95.00	21.25	7.22	82.99	9.79	31.44

TABLE V.—METHODS OF PAYMENT, IN THE STATE, BY INDUSTRIES.

(The figures are percentages.)

INDUSTRIES.	1860.			1880.			1892.		
	Weekly.	Monthly.	Irregular.	Weekly.	Bi-Weekly.	Monthly.	Weekly.	Bi-Weekly.	Monthly.
Arms and Ammunition, .	....	100.00	....	20.00	20.00	60.00	61.11	5.56	33.33
Boots, Shoes, and Leather Goods, . . . . . }	77.78	11.11	11.11	56.00	24.00	20.00	79.59	10.20	10.21
Brass and Brass Goods, .	12.50	70.83	16.67	27.78	11.11	61.11	85.57	4.12	10.31
Breweries and Distilleries,	....	100.00	....	30.00	....	70.00	88.24	....	11.76
Brick, . . . . .	....	....	100.00	....	8.00	92.00	4.44	6.67	88.89
Carriages and Carriage Parts,	76.92	15.39	7.69	67.16	4.48	28.36	89.90	1.01	9.09
Clocks, Watches, and Toys,	....	83.33	16.67	14.28	....	85.72	70.59	....	29.41
Corsets and Corset Materials,	50.00	50.00	....	38.46	30.77	30.77	66.67	28.57	4.76
Cotton Goods, . . . .	....	30.77	69.23	....	....	100.00	53.62	5.80	40.58
Cutlery and Tools, . .	12.50	62.50	25.00	23.26	2.32	74.42	70.89	7.59	21.52
Electrical Goods, . . .	....	....	....	....	....	....	90.48	....	9.52
General Hardware, . .	27.59	62.07	10.34	25.33	6.67	68.00	67.97	9.37	22.66
Hats and Hat Materials, .	75.00	12.50	12.50	27.59	68.96	3.45	38.95	61.05	....
Iron and Steel, . . . .	19.05	69.05	11.90	34.13	5.55	60.32	77.43	6.23	16.34
Paper Mills, . . . . .	12.50	62.50	25.00	11.54	3.85	84.61	44.90	6.12	48.98
Paper Boxes, Bags, and Envelopes, . . . . }	33.33	33.33	33.34	36.00	20.00	44.00	50.00	26.09	23.91
Pianos and Organs, . .	100.00	....	....	42.86	....	57.14	80.00	....	20.00
Printing and Bookbinding,	78.57	21.43	....	71.11	13.33	15.56	93.62	4.25	2.13
Rubber Goods, . . . .	....	100.00	....	44.44	....	55.56	90.48	4.76	4.76
Silk, Knit Goods, Etc., .	14.28	80.96	4.76	16.98	9.43	73.59	63.33	8.89	27.78
Silverware, . . . . .	20.00	60.00	20.00	26.32	5.26	68.42	91.89	....	8.11
Stone-cutting and Quarrying,	66.67	22.22	11.11	34.38	31.25	34.37	50.75	26.86	22.39
Wood-working, . . . .	40.91	40.91	18.18	45.16	9.68	45.16	76.00	5.60	18.40
Woolen Goods, . . . .	....	91.67	8.33	....	5.77	94.23	45.94	6.76	47.30
Miscellaneous, . . . .	37.04	40.74	22.22	47.50	1.25	51.25	77.32	4.12	18.56



TABLE VI.—HOURS OF LABOR, IN THE STATE, BY INDUSTRIES,  
IN ESTABLISHMENTS REPORTING FOR  
1860, 1880, AND 1892.

INDUSTRIES.	1860.			1880.			1892.		
	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Short time Saturday.	Over 10 hours.	10 hours.	Under 10 hours. Short time Saturday.
Arms and Ammunition, . . .	1	2	..	1	2	..	..	3	.. 1
Boots, Shoes and Leather Goods, ..	..	9	3	..	0	3	..	9	.. 4
Brass and Brass Goods, . . .	1	23	5	..	24	10	..	23	1 12
Breweries and Distilleries, . .	3	....	..	2	1	..	..	3	.. ....
Brick, . . . . .	2	....	..	2	....	..	..	2	.. ....
Carriages and Carriage Parts, . .	..	26	9	..	26	12	..	25	1 12
Clocks, Watches and Toys, . .	..	6	..	..	6	..	..	5	1 ....
Corsets and Corset Materials, . .	..	2	1	..	2	1	..	2	.. 2
Cotton Goods, . . . . .	13	....	2	13	....	2	5	8	.. 5
Cutlery and Tools, . . . . .	..	16	..	..	16	..	..	16	.. ....
General Hardware, . . . . .	..	29	2	..	29	5	..	28	1 9
Hats and Hat Materials, . . .	1	7	..	1	7	..	..	8	.. ....
Iron and Steel, . . . . .	7	35	5	5	37	9	3	36	3 14
Paper Mills, . . . . .	7	1	1	7	1	1	7	1	.. 1
Paper Boxes, Bags and Envelopes,	1	2	..	1	2	..	1	2	.. 1
Pianos and Organs, . . . . .	..	2	..	..	2	..	..	2	.. ....
Printing and Bookbinding, . . .	..	14	2	..	14	3	..	14	.. 7
Rubber Goods, . . . . .	..	4	..	..	4	1	..	4	.. 1
Silk, Knit Goods, etc., . . . .	7	14	2	6	15	5	6	14	1 10
Silverware, . . . . .	..	5	1	..	5	3	..	4	1 2
Stone-cutting and Quarrying, . .	3	6	3	..	9	3	..	9	.. 7
Wood-working, . . . . .	..	22	2	..	22	4	..	21	1 5
Woolen Goods, . . . . .	12	....	..	10	2	..	3	9	.. 4
Miscellaneous, . . . . .	6	21	5	1	26	7	1	25	1 10
Totals, . . . . .	64	246	43	49	261	69	26	273	11 107

TABLE VI.—METHODS OF PAYMENT, IN THE STATE, BY INDUSTRIES, IN ESTABLISHMENTS REPORTING FOR 1860, 1880, AND 1892.

INDUSTRIES.	1860.			1880.			1892.		
	Weekly.	Monthly.	Irregular.	Weekly.	Bi-weekly.	Monthly.	Weekly.	Bi-weekly.	Monthly.
Arms and Ammunition, . . .	..	3	....	..	....	3	1	....	2
Boots, Shoes and Leather Goods,	7	1	1	6	2	1	7	1	1
Brass and Brass Goods, . . .	3	17	4	4	2	18	22	....	2
Breweries and Distilleries, . .	..	3	....	..	....	3	2	....	1
Brick, . . . . .	..	....	2	..	....	2	..	....	2
Carriages and Carriage Parts, .	20	4	2	21	....	5	24	....	2
Clocks, Watches, and Toys, . .	..	5	1	..	..	6	3	....	3
Corsets and Corset Materials, .	1	1	....	1	....	1	2	....	....
Cotton Goods, . . . . .	..	4	9	..	....	13	6	....	7
Cutlery and Tools, . . . . .	2	10	4	2	....	14	6	1	9
General Hardware, . . . . .	8	18	3	9	2	18	22	1	8
Hats and Hat Materials, . . .	6	1	1	1	6	1	3	5	....
Iron and Steel, . . . . .	8	29	5	11	3	28	32	3	7
Paper Mills, . . . . .	1	5	2	1	....	7	2	1	5
Paper Boxes, Bags, and Envelopes,	1	1	1	1	....	2	1	1	1
Pianos and Organs, . . . . .	2	....	....	2	....	....	2	....	....
Printing and Bookbinding, . . .	11	3	....	10	3	1	11	2	1
Rubber Goods, . . . . .	..	4	....	1	....	3	4	....	....
Silk, Knit Goods, etc. . . . .	3	17	1	3	2	16	17	..	4
Silverware, . . . . .	1	3	1	1	....	4	4	....	1
Stone-cutting and Quarrying, .	6	2	1	3	3	3	6	3	....
Wood-working, . . . . .	9	9	4	10	2	10	15	2	5
Woolen Goods, . . . . .	..	11	1	..	....	12	7	....	5
Miscellaneous, . . . . .	10	11	8	12	....	15	19	1	7
Totals, . . . . .	99	162	49	99	25	186	218	21	71

TABLE VII.—HOURS OF LABOR, IN THE STATE, BY INDUSTRIES,  
IN ESTABLISHMENTS REPORTING FOR  
1860, 1880, AND 1892.  
IN PERCENTAGES.

INDUSTRIES.	1860.			1880.			1892.			
	Over 10 hrs.	10 Hours.	Short time Saturday.	Over 10 hrs.	10 Hours.	Short time Saturday.	Over 10 hrs.	10 Hours.	Under 10 hrs.	Short time Saturday.
Arms and Ammunition,	33.33	66.67	....	33.33	66.67	....	....	100.00	....	33.33
Boots, Shoes, and Leather Goods, . . .	....	100.00	33.33	....	100.00	33.33	....	100.00	....	44.44
Brass and Brass Goods,	4.17	95.83	20.83	....	100.00	41.67	....	95.83	4.17	50.00
Breweries and Distilleries, . . . . .	100.00	....	....	66.67	33.33	....	....	100.00	....	....
Brick, . . . . .	100.00	....	....	100.00	....	....	....	100.00	....	....
Carriages and Carriage Parts, . . .	....	100.00	34.62	....	100.00	46.15	....	96.15	3.85	46.15
Clocks, Watches, and Toys, . . . . .	....	100.00	....	....	100.00	....	....	83.33	16.67	....
Corsets and Corset Materials, . . . . .	....	100.00	50.00	....	100.00	50.00	....	100.00	....	100.00
Cotton Goods, . . . . .	100.00	....	15.38	100.00	....	15.38	38.46	61.54	....	38.46
Cutlery and Tools, . . . . .	....	100.00	....	....	100.00	....	....	100.00	....	....
General Hardware, . . . . .	....	100.00	6.90	....	100.00	17.24	....	96.55	3.44	31.03
Hats and Hat Materials,	12.50	87.50	....	12.50	87.50	....	....	100.00	....	....
Iron and Steel, . . . . .	16.67	83.33	11.90	11.90	88.10	21.43	7.14	85.72	7.14	33.33
Paper Mills, . . . . .	87.50	12.50	12.50	87.50	12.50	12.50	87.50	12.50	....	12.50
Paper Boxes, Bags, and Envelopes, . .	33.33	66.67	....	33.33	66.67	....	33.33	66.67	....	33.33
Pianos and Organs, . . . . .	....	100.00	....	....	100.00	....	....	100.00	....	....
Printing and Book-binding, . . . . .	....	100.00	14.29	....	100.00	21.43	....	100.00	....	50.00
Rubber Goods, . . . . .	....	100.00	....	....	100.00	25.00	....	100.00	....	25.00
Silk, Knit Goods, Etc.,	33.33	66.67	9.52	28.57	71.43	23.81	28.57	66.67	4.76	47.62
Silverware, . . . . .	....	100.00	20.00	....	100.00	60.00	....	80.00	20.00	40.00
Stone-cutting and Quarrying, . . . . .	33.33	66.67	33.33	....	100.00	33.33	....	100.00	....	77.78
Wood-working, . . . . .	....	100.00	9.09	....	100.00	18.18	....	95.46	4.54	22.73
Woolen Goods, . . . . .	100.00	....	....	83.33	16.67	....	25.00	75.00	....	33.33
Miscellaneous, . . . . .	22.22	77.78	18.52	3.70	96.30	25.92	3.70	92.60	3.70	37.04
Percentage of Totals,	20.65	79.35	13.87	15.81	84.19	22.26	8.39	88.06	3.55	34.52

TABLE VII.—METHODS OF PAYMENT, IN THE STATE, BY INDUSTRIES, IN ESTABLISHMENTS REPORTING FOR 1860, 1880, AND 1892.  
IN PERCENTAGES.

INDUSTRIES.	1860.			1880.			1892.		
	Weekly.	Monthly.	Irregular.	Weekly.	Bi-Weekly.	Monthly.	Weekly.	Bi-Weekly.	Monthly.
Arms and Ammunition, . . . . .	....	100.00	....	....	....	100.00	33.33	....	66.67
Boots, Shoes, and Leather Goods, . . . . .	77.78	11.11	11.11	66.67	22.22	11.11	77.78	11.11	11.11
Brass and Brass Goods, . . . . .	12.50	70.83	16.67	16.67	8.33	75.00	91.67	....	8.33
Breweries and Distilleries, . . . . .	....	100.00	....	....	....	100.00	66.67	....	33.33
Brick, . . . . .	....	....	100.00	....	....	100.00	....	....	100.00
Carriages and Carriage Parts, . . . . .	76.92	15.38	7.70	80.77	....	19.23	92.30	....	7.70
Clocks, Watches, and Toys, . . . . .	... 83.33	16.67	....	....	....	100.00	50.00	....	50.00
Corsets and Corset Materials, . . . . .	50.00	50.00	....	50.00	....	50.00	100.00	....	....
Cotton Goods, . . . . .	....	30.77	69.23	....	....	100.00	46.15	....	53.85
Cutlery and Tools, . . . . .	12.50	62.50	25.00	12.50	....	87.50	37.50	6.25	56.25
General Hardware, . . . . .	27.59	62.07	10.34	31.03	6.90	62.07	75.86	3.45	20.69
Hats and Hat Materials, . . . . .	75.00	12.50	12.50	12.50	75.00	12.50	37.50	62.50	....
Iron and Steel, . . . . .	19.05	69.05	11.90	26.19	7.14	66.67	76.19	7.14	16.67
Paper Mills, . . . . .	12.50	62.50	25.00	12.50	....	87.50	25.00	12.50	62.50
Paper Boxes, Bags, and Envelopes, . . . . .	33.33	33.33	33.34	33.33	....	66.67	33.33	33.33	33.34
Pianos and Organs, . . . . .	100.00	....	....	100.00	....	....	100.00	...	....
Printing and Bookbinding, . . . . .	78.57	21.43	....	71.43	21.43	7.14	78.57	14.29	7.14
Rubber Goods, . . . . .	....	100.00	....	25.00	....	75.00	100.00	....	....
Silk, Knit Goods, Etc., . . . . .	14.29	80.95	4.76	14.29	9.52	76.19	80.95	....	19.05
Silverware, . . . . .	20.00	60.00	20.00	20.00	....	80.00	80.00	....	20.00
Stone-cutting and Quarrying, . . . . .	66.67	22.22	11.11	33.33	33.33	33.34	66.67	33.33	....
Wood-working, . . . . .	40.91	40.91	18.18	45.45	9.09	45.46	68.18	9.09	22.73
Woolen Goods, . . . . .	....	91.67	8.33	....	....	100.00	58.33	....	41.67
Miscellaneous, . . . . .	37.04	40.74	22.22	44.44	....	55.56	70.37	3.70	25.93
Percentage of Totals, . . . . .	31.94	52.25	15.81	31.94	8.06	60.00	70.32	6.78	22.90

TABLE VIII.—HOURS OF LABOR, IN THE STATE, BY INDUSTRIES,  
IN ESTABLISHMENTS REPORTING FOR 1880 AND 1892.

INDUSTRIES.	1880.					1892.				
	Over 10 hours.	10 hours.	Under 10 hours.		SHORT SAT-URDAY. To make 60 or more hrs. weekly.	Over 10 hours.	10 hours.	Under 10 hours.		SHORT SAT-URDAY. To make 60 hours weekly.
			Less than 60 weekly.	Less than 60 weekly.				Less than 60 weekly.	Less than 60 weekly.	
Arms and Ammunition, . . .	1	9	..	..	3	....	10	..	..	4
Boots, Shoes and Leather Goods, . . .	2	23	..	1	7	1	23	1	1	10
Brass and Brass Goods, . . .	....	52	2	..	20	....	52	2	..	25
Breweries and Distilleries, . . .	4	6	..	..	1	1	9	..	..	1
Brick, . . . . .	19	6	..	..	1	17	8	..	..	2
Carriages and Carriage Parts, . . .	....	67	..	..	24	....	65	2	..	24
Clocks, Watches and Toys, . . .	....	14	..	..	3	....	13	1	..	4
Corsets and Corset Materials, . . .	....	12	1	..	8	....	12	1	..	9
Cotton Goods, . . . . .	48	5	..	24	....	36	17	..	36	....
Cutlery and Tools, . . . . .	....	43	..	..	13	1	40	2	1	16
General Hardware, . . . . .	....	74	1	..	19	....	68	7	..	26
Hats and Hat Materials, . . . . .	3	25	1	..	4	1	26	2	..	4
Iron and Steel, . . . . .	9	116	1	3	35	9	111	6	5	44
Paper Mills, . . . . .	20	6	..	..	1	20	6	..	..	1
Paper Boxes, Bags and Envelopes, . . . . .	1	24	..	..	6	1	24	..	1	7
Pianos and Organs, . . . . .	....	7	..	..	2	....	7	..	..	2
Printing and Bookbinding, . . . . .	....	42	3	..	17	....	41	4	..	26
Rubber Goods, . . . . .	....	8	1	..	3	....	8	1	..	3
Silk, Knit Goods, Etc., . . . . .	13	39	1	6	10	13	38	2	13	13
Silverware, . . . . .	....	19	..	..	11	....	18	1	..	10
Stone-cutting and Quarrying, . . . . .	....	32	..	..	15	....	17	15	..	23
Wood-working, . . . . .	2	60	..	2	11	2	50	10	2	19
Woolen Goods, . . . . .	38	14	..	11	2	26	26	..	25	8
Miscellaneous, . . . . .	4	71	5	..	17	3	71	6	1	19
Totals, . . . . .	164	774	16	47	233	131	760	63	85	295



TABLE VIII.—METHODS OF PAYMENT, IN THE STATE, BY INDUSTRIES, IN ESTABLISHMENTS REPORTING FOR 1880 AND 1892.

INDUSTRIES.	INCORPORATED.		1880.				1892.			
			Weekly.	Bi-weekly.	Monthly.	Irregular.	Weekly.	Bi-weekly.	Monthly.	Irregular.
	Yes.	No.								
Arms and Ammunition, . . .	5	5	2	2	6	..	6	..	4	..
Boots, Shoes and Leather Goods,	5	20	14	8	5	..	20	3	2	..
Brass and Brass Goods, . . .	34	20	15	6	32	1	46	3	5	..
Breweries and Distilleries, . .	4	6	3	..	7	..	8	..	2	..
Brick, . . . . .	2	23	....	2	8	17	....	2	8	15
Carriages and Carriage Parts,	16	51	45	3	14	5	59	1	5	2
Clocks, Watches and Toys, . .	9	5	2	..	11	1	9	..	5	..
Corsets and Corset Materials,	3	10	5	4	4	..	8	4	1	..
Cotton Goods, . . . . .	33	20	....	..	52	1	30	2	21	..
Cutlery and Tools, . . . . .	23	20	10	1	32	..	28	3	12	..
General Hardware, . . . . .	44	31	19	5	50	1	50	7	18	..
Hats and Hat Materials, . . .	7	22	8	20	1	..	14	15	....	..
Iron and Steel, . . . . .	61	65	43	7	72	4	93	8	21	4
Paper Mills, . . . . .	8	18	3	1	22	..	10	3	13	..
Paper Boxes, Bags and Envelopes, . . . . .	7	18	9	5	10	1	15	6	4	..
Pianos and Organs, . . . . .	4	3	3	..	4	..	5	..	2	..
Printing and Bookbinding, . .	12	33	32	6	7	..	41	2	2	..
Rubber Goods, . . . . .	6	3	4	..	5	..	8	..	1	..
Silk, Knit Goods, Etc., . . .	27	26	9	5	39	..	35	5	13	..
Silverware, . . . . .	14	5	5	1	13	..	18	..	1	..
Stone-cutting and Quarrying,	3	29	11	10	11	..	20	8	4	..
Wood-working, . . . . .	14	48	28	6	27	1	42	5	14	1
Woolen Goods, . . . . .	26	26	....	3	49	..	28	4	20	..
Miscellaneous, . . . . .	28	52	38	1	37	4	60	2	15	3
Totals, . . . . .	395	559	308	94	516	36	653	83	193	25

TABLE IX.—HOURS OF LABOR, IN THE STATE, BY INDUSTRIES,  
IN ESTABLISHMENTS REPORTING FOR  
1880 AND 1892.  
IN PERCENTAGES.

INDUSTRIES.	1880.					1892.				
	Over 10 hours.	10 hours.	Under 10 hours.	SHORT SATURDAY.		Over 10 hours.	10 hours.	Under 10 hours.	SHORT SATURDAY.	
				To make 60 or more hrs. weekly.	Less than 60 weekly.				To make 60 hrs. weekly.	Less than 60 weekly.
Arms and Ammunition,	10.00	90.00	....	....	30.00	....	100.00	....	....	40.00
Boots, Shoes, and Leather Goods, . . }	8.00	92.00	....	4.00	28.00	4.00	92.00	4.00	4.00	40.00
Brass and Brass Goods,	....	96.30	3.70	....	37.04	....	96.30	3.70	....	46.30
Breweries and Distilleries, . . }	40.00	60.00	....	....	10.00	10.00	90.00	....	....	10.00
Brick, . . . . .	76.00	24.00	....	....	4.00	68.00	32.00	....	....	8.00
Carriages and Carriage Parts, . . }	....	100.00	....	....	35.82	....	97.01	2.99	....	35.82
Clocks, Watches, and Toys, . . . . }	....	100.00	....	....	21.43	....	92.86	7.14	....	28.57
Corsets and Corset Materials, . . . }	....	92.31	7.69	....	61.54	....	92.31	7.69	....	69.23
Cotton Goods, . . .	90.57	9.43	....	45.28	....	67.92	32.08	....	67.92	....
Cutlery and Tools, . .	....	100.00	....	....	30.23	2.33	93.02	4.65	2.33	37.21
General Hardware, . .	....	98.67	1.33	....	25.33	....	90.67	9.33	....	34.67
Hats and Hat Materials, . . }	10.34	86.21	3.45	....	13.79	3.45	89.65	6.90	....	13.79
Iron and Steel, . . .	7.14	92.06	.80	2.38	27.78	7.14	88.10	4.76	3.97	34.92
Paper Mills, . . . .	76.92	23.08	....	....	3.85	76.92	23.08	....	....	3.85
Paper Boxes, Bags, and Envelopes, . }	4.00	96.00	....	....	24.00	4.00	96.00	....	4.00	28.00
Pianos and Organs, . .	....	100.00	....	....	28.57	....	100.00	....	....	28.57
Printing and Book-binding, . . }	....	93.33	6.67	....	37.78	....	91.11	8.89	....	57.78
Rubber Goods, . . .	....	88.89	11.11	....	33.33	....	88.89	11.11	....	33.33
Silk, Knit Goods, Etc.,	24.53	73.58	1.89	11.32	18.87	24.53	71.70	3.77	24.53	24.53
Silverware, . . . .	....	100.00	....	....	57.89	....	94.74	5.26	....	52.63

TABLE IX.—METHODS OF PAYMENT, IN THE STATE, BY INDUSTRIES, IN ESTABLISHMENTS REPORTING FOR 1880 AND 1892.  
IN PERCENTAGES.

INDUSTRIES.	IN-CORPORATED.		1880.				1892.			
	Yes.	No.	Weekly.	Bi-Weekly.	Monthly.	Irregular.	Weekly.	Bi-Weekly.	Monthly.	Irregular.
Arms and Ammunition,	50.00	50.00	20.00	20.00	60.00	....	60.00	....	40.00	....
Boots, Shoes, and Leather Goods, }	20.00	80.00	56.00	24.00	20.00	....	80.00	12.00	8.00	....
Brass and Brass Goods,	62.96	37.04	27.78	11.11	59.26	1.85	85.18	5.56	9.26	....
Breweries and Distilleries, }	40.00	60.00	30.00	....	70.00	....	80.00	....	20.00	....
Brick, . . . . .	8.00	92.00	....	8.00	24.00	68.00	....	8.00	32.00	60.00
Carriages and Carriage Parts, }	23.88	76.12	67.16	4.48	20.90	7.46	88.06	1.49	7.46	2.99
Clocks, Watches, and Toys, }	64.29	35.71	14.29	....	78.57	7.14	64.29	....	35.71	....
Corsets and Corset Materials, }	23.08	76.92	38.46	30.77	30.77	....	61.54	30.77	7.69	....
Cotton Goods, . . . . .	62.26	37.74	....	....	98.12	1.88	56.61	3.77	39.62	....
Cutlery and Tools, . . . . .	53.49	46.51	23.25	2.33	74.42	....	65.11	6.98	27.91	....
General Hardware, . . . . .	58.67	41.33	25.33	6.67	66.67	1.33	66.67	9.33	24.00	....
Hats and Hat Materials, }	24.14	75.86	27.58	68.97	3.45	....	48.28	51.72	....	....
Iron and Steel, . . . . .	48.41	51.59	34.13	5.56	57.14	3.17	73.81	6.35	16.67	3.17
Paper Mills, . . . . .	30.77	69.23	11.54	3.85	84.61	....	38.46	11.54	50.00	....
Paper Boxes, Bags, and Envelopes, }	28.00	72.00	36.00	20.00	40.00	4.00	60.00	24.00	16.00	....
Pianos and Organs, . . . . .	57.14	42.86	42.86	....	57.14	....	71.43	....	28.57	....
Printing and Book-binding, }	26.67	73.33	71.11	13.33	15.56	....	91.11	4.44	4.45	....
Rubber Goods, . . . . .	66.67	33.33	44.44	....	55.56	....	88.89	....	11.11	..
Silk, Knit Goods, Etc., . . . . .	50.94	49.06	16.98	9.44	73.58	....	66.03	9.44	24.53	....
Silverware, . . . . .	73.68	26.32	26.32	5.26	68.42	....	94.74	....	5.26	....

TABLE IX.—HOURS OF LABOR, IN THE STATE, BY INDUSTRIES,  
IN ESTABLISHMENTS REPORTING FOR 1880  
AND 1892.—CONCLUDED.  
IN PERCENTAGES.

INDUSTRIES.	1880.					1892.				
	Over 10 hours.	10 hours.	Under 10 hours.	SHORT SATURDAY.		Over 10 hours.	10 hours.	Under 10 hours.	SHORT SATURDAY.	
				To make 60 or more hrs. weekly.	Less than 60 weekly.				To make 60 hrs. weekly.	Less than 60 weekly.
Stone-cutting and Quarrying, . . . }	....	100.00	....	....	46.87	....	53.13	46.87	....	71.83
Wood-working, . . .	3.23	96.77	....	3.23	17.74	3.23	80.65	16.12	3.23	30.65
Woolen Goods, . . .	73.08	26.92	....	21.15	3.85	50.00	50.00	....	48.08	5.77
Miscellaneous, . . .	5.00	88.75	6.25	....	21.25	3.75	88.75	7.50	1.25	23.75
Per cent. of Totals, .	17.19	81.13	1.68	4.93	24.42	13.73	79.67	6.60	8.91	31.03

TABLE IX.—METHODS OF PAYMENT, IN THE STATE, BY INDUSTRIES, IN ESTABLISHMENTS REPORTING FOR 1880 AND 1892.—CONCLUDED.  
IN PERCENTAGES.

INDUSTRIES.	IN-CORPORATED.		1880.				1892.			
			Weekly.	Bi-Weekly.	Monthly.	Irregular.	Weekly.	Bi-Weekly.	Monthly.	Irregular.
	Yes.	No.								
Stone-cutting and Quarrying, . . . }	9.37	90.63	34.37	31.25	34.38	....	62.50	25.00	12.50	....
Wood-working, . . .	22.58	77.42	45.16	9.68	43.55	1.61	67.74	8.07	22.58	1.61
Woolen Goods, . . .	50.00	50.00	....	5.77	94.23	....	53.85	7.69	38.46	....
Miscellaneous, . . .	35.00	65.00	47.50	1.25	46.25	5.00	75.00	2.50	18.75	3.75
Per cent. of Totals, .	41.40	58.60	32.29	9.85	54.09	3.77	68.45	8.70	20.23	2.62



TABLE X.—HOURS OF LABOR, 1892, IN THE STATE.—BY INDUSTRIES, ESTABLISHMENTS, AND EMPLOYEES.

INDUSTRIES.	DAILY HOURS OF LABOR.						SHORT SATURDAY.			
	Over 10 hours.		10 hours.		Under 10 hours.		To make 60 hours weekly.		Less than 60 hours.	
	Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Arms and Ammunition, . . . . .	..	.....	18	4,115	..	.....	..	.....	11	3,593
Boots, Shoes, and Leather Goods, . . . . .	4	140	43	2,066	2	23	4	140	20	1,246
Brass and Brass Goods, . . . . .	..	.....	94	15,275	3	73	..	.....	42	8,485
Breweries and Distilleries, . . . . .	1	10	16	251	..	.....	..	.....	1	10
Brick, . . . . .	28	822	16	511	1	41	..	.....	3	77
Carriages and Carriage Parts, . . . . .	1	12	96	2,656	2	62	1	12	35	1,235
Clocks, Watches, and Toys, . . . . .	..	.....	16	3,468	1	600	..	.....	3	400
Corsets and Corset Materials, . . . . .	..	.....	19	3,896	2	1,265	..	.....	14	3,470
Cotton Goods, . . . . .	49	12,958	20	3,782	..	.....	47	12,938	..	.....
Cutlery and Tools, . . . . .	2	35	74	5,573	3	82	2	35	30	2,052
Electrical Goods, . . . . .	..	.....	20	1,369	1	4	..	..	12	834
General Hardware, . . . . .	1	50	119	14,834	8	719	..	.....	..	6,445
Hats and Hat Materials, . . . . .	1	36	70	7,187	6	565	..	.....	..	1,357
Iron and Steel, . . . . .	15	976	230	15,343	12	204	9	888	96	491
Paper Mills, . . . . .	37	1,308	12	415	..	.....	..	.....	3	168
Paper Boxes, Bags, and Envelopes, . . . . .	5	212	38	2,115	3	61	5	212	12	720
Pianos and Organs, . . . . .	..	.....	10	1,108	..	.....	..	.....	4	293
Printing and Bookbinding, . . . . .	1	28	83	1,387	10	81	..	.....	51	749
Rubber Goods, . . . . .	..	.....	20	6,106	1	6	..	.....	9	1,896
Silk, Knit Goods, Etc., . . . . .	29	5,357	55	7,944	6	425	29	5,357	22	1,890
Silverware, . . . . .	..	.....	35	5,295	2	35	..	.....	19	3,007
Stone-cutting and Quarrying, . . . . .	..	.....	30	1,288	37	1,636	..	.....	42	2,115
Wood-working, . . . . .	4	68	93	2,302	28	426	4	68	39	1,143
Woolen Goods, . . . . .	39	5,838	35	3,594	..	.....	36	5,258	4	433
Miscellaneous, . . . . .	14	215	161	6,713	19	303	6	59	55	3,138

TABLE X.—METHODS OF PAYMENT, 1892, IN THE STATE.—BY INDUSTRIES, ESTABLISHMENTS, AND EMPLOYEES.

INDUSTRIES.	ESTABLISH- MENTS INCORPORATED.		METHODS OF PAYMENT.							
			Weekly.		Bi-weekly.		Monthly.		Irregu- lar.	
			Estab- lish- ments.	Em- ployees.	Estab- lish- ments.	Em- ployees.	Estab- lish- ments.	Em- ployees.	Estab- lish- ments.	Em- ployees.
	Yes.	No.								
Arms and Ammunition, . . . . .	11	7	11	3,575	1	40	6	500	..	..
Boots, Shoes, and Leather Goods, . . . . .	13	36	39	1,882	5	232	5	115	..	..
Brass and Brass Goods, . . . . .	54	43	83	14,967	4	193	10	188	..	..
Breweries and Distilleries, . . . . .	7	10	15	233	..	.....	2	28	..	..
Brick, . . . . .	5	40	2	76	3	60	19	574	21	664
Carriages and Carriage Parts, . . . . .	18	81	89	2,598	1	14	6	99	3	19
Clocks, Watches, and Toys, . . . . .	11	6	12	3,579	..	.....	5	489	..	..
Corsets and Corset Materials, . . . . .	4	17	14	4,520	6	635	1	6	..	..
Cotton Goods, . . . . .	41	28	37	13,834	4	372	28	2,534	..	..
Cutlery and Tools, . . . . .	42	37	56	4,253	6	273	17	1,164	..	..
Electrical Goods, . . . . .	17	4	19	1,294	..	.....	2	79	..	..
General Hardware, . . . . .	66	62	87	13,648	12	1,064	29	891	..	..
Hats and Hat Materials, . . . . .	8	69	30	3,218	47	4,570	..	.....	..	..
Iron and Steel, . . . . .	123	134	199	14,886	16	495	38	1,124	4	18
Paper Mills, . . . . .	18	31	22	1,012	3	42	24	669	..	..
Paper Boxes, Bags, and Envelopes, . . . . .	13	33	23	1,812	12	375	11	201	..	..
Pianos and Organs, . . . . .	6	4	8	1,083	..	.....	2	25	..	..
Printing and Bookbinding, . . . . .	21	73	88	1,453	4	21	2	22	..	..
Rubber Goods, . . . . .	14	7	19	5,950	1	150	1	12	..	..
Silk, Knit Goods, Etc., . . . . .	45	45	57	10,530	8	1,070	25	2,126	..	..
Silverware, . . . . .	21	16	34	5,289	..	.....	3	41	..	..
Stone-cutting and Quarrying, . . . . .	14	53	34	1,435	18	654	13	828	2	7
Wood-working, . . . . .	21	104	95	2,246	7	293	22	249	1	8
Woolen Goods, . . . . .	36	38	34	6,272	5	790	35	2,370	..	..
Miscellaneous, . . . . .	65	129	150	5,390	8	802	34	729	2	310

TABLE XI.—HOURS OF LABOR, 1892, IN THE STATE.—BY INDUSTRIES, ESTABLISHMENTS, AND EMPLOYEES.  
IN PERCENTAGES.

INDUSTRIES.	DAILY HOURS OF LABOR.						SHORT SATURDAY.			
	Over 10 hours.		10 hours.		Under 10 hours.		To make 60 hrs. weekly		Less than 60 hours.	
	Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Arms and Ammunition, . . . . .	....	....	100.00	100.00	....	....	....	....	61.11	87.31
Boots, Shoes, and Leather Goods, . . . }	8.16	6.28	87.76	92.69	4.08	1.03	8.16	6.28	40.82	55.90
Brass and Brass Goods, . . . . .	....	....	96.91	99.52	3.09	.48	....	....	43.30	55.28
Breweries and Distilleries, . . . . .	5.88	3.83	94.12	96.17	....	....	....	....	5.88	3.83
Brick, . . . . .	62.22	59.83	35.56	37.19	2.22	2.98	....	....	6.98	5.60
Carriages and Carriage Parts, . . . }	1.01	.44	96.97	97.29	2.02	2.27	1.01	.44	35.35	45.24
Clocks, Watches, and Toys, . . . . .	....	....	94.12	85.25	5.88	14.75	....	....	17.65	9.83
Corsets and Corset Materials, . . . . .	....	....	90.48	75.49	9.52	24.51	....	....	66.67	67.24
Cotton Goods, . . . . .	71.01	77.41	28.99	22.59	....	....	68.12	77.28	....	....
Cutlery and Tools, . . . . .	2.53	.62	92.41	97.94	5.06	1.44	2.53	.62	37.97	36.06
Electrical Goods, . . . . .	....	....	95.24	99.71	4.76	.29	....	....	57.14	60.74
General Hardware, . . . . .	.78	.32	92.97	95.07	6.25	4.61	....	....	41.41	41.31
Hats and Hat Materials, . . . . .	1.30	.46	90.91	92.28	7.79	7.26	....	....	28.57	17.42
Iron and Steel, . . . . .	5.84	5.91	89.49	92.86	4.67	1.23	3.50	5.38	37.35	45.34
Paper Mills, . . . . .	75.51	75.91	24.49	24.09	....	....	....	....	6.12	9.75
Paper Boxes, Bags, and Envelopes, . . . }	10.87	8.88	82.61	88.57	6.52	2.55	10.87	8.88	26.09	30.15
Pianos and Organs, . . . . .	....	....	100.00	100.00	....	....	....	....	40.00	26.44
Printing and Book-binding, . . . }	1.06	1.87	88.30	92.71	10.64	5.42	....	....	54.25	50.07
Rubber Goods, . . . . .	....	....	95.24	99.90	4.76	.10	....	....	42.86	31.62
Silk, Knit Goods, Etc., . . . . .	32.22	39.03	61.11	57.88	6.67	3.09	32.22	39.03	24.44	13.77
Silverware, . . . . .	....	....	94.60	99.34	5.40	.66	....	....	51.35	56.42
Stone-cutting and Quarrying, . . . }	....	....	44.78	44.05	55.22	55.95	....	....	62.68	72.33
Wood-working, . . . . .	3.20	2.43	74.40	82.33	22.40	15.24	3.20	2.43	31.20	40.88
Woolen Goods, . . . . .	52.70	61.90	47.30	38.10	....	....	48.65	55.76	5.41	4.59
Miscellaneous, . . . . .	7.22	2.97	82.99	92.84	9.79	4.19	3.09	.82	28.35	43.40

TABLE XI.—METHODS OF PAYMENT, 1892, IN THE STATE.—BY INDUSTRIES, ESTABLISHMENTS, AND EMPLOYES.  
IN PERCENTAGES.

INDUSTRIES.	METHODS OF PAYMENT.							
	Weekly.		Bi-weekly.		Monthly.		Irregular.	
	Establish-ments.	Employes.	Establish-ments.	Employes.	Establish-ments.	Employes.	Establish-ments.	Employes.
Arms and Ammunition, . . .	61.11	86.88	5.56	.97	33.33	12.15	....	....
Boots, Shoes, and Leather Goods, . . .	79.59	84.43	10.20	10.41	10.21	5.16	....	....
Brass and Brass Goods, . . .	85.57	97.52	4.12	1.26	10.31	1.22	....	....
Breweries and Distilleries, . . .	88.24	89.27	.....	....	11.76	10.73	....	....
Brick, . . . . .	4.44	5.53	6.67	4.37	42.22	41.77	46.67	48.33
Carriages and Carriage Parts, . . .	89.90	95.17	1.01	.51	6.06	3.63	3.03	.69
Clocks, Watches, and Toys, . . .	70.59	87.98	.....	....	29.41	12.02	....	....
Corsets and Corset Materials, . . .	66.67	87.58	28.57	12.30	4.76	.12	....	....
Cotton Goods, . . . . .	53.62	82.64	5.80	2.22	40.58	15.14	....	....
Cutlery and Tools, . . . . .	70.89	74.74	7.59	4.80	21.52	20.46	....	....
Electrical Goods, . . . . .	90.48	94.25	.....	....	9.52	5.75	....	....
General Hardware, . . . . .	67.96	87.47	9.38	6.82	22.66	5.71	....	...
Hats and Hat Materials, . . .	38.96	41.32	61.04	58.68	....	....	....	....
Iron and Steel, . . . . .	77.43	90.09	6.23	3.00	14.79	6.80	1.55	.11
Paper Mills, . . . . .	44.90	58.73	6.12	2.44	48.98	38.83	....	....
Paper Boxes, Bags, and Envelopes, . . .	50.00	75.88	26.09	15.70	23.91	8.42	....	....
Pianos and Organs, . . . . .	80.00	97.74	.....	....	20.00	2.26	....	....
Printing and Bookbinding, . . .	93.62	97.13	4.25	1.40	2.13	1.47	....	....
Rubber Goods, . . . . .	90.48	97.35	4.76	2.45	4.76	.20	....	....
Silk, Knit Goods, etc., . . . . .	63.33	76.72	8.89	7.80	27.78	15.48	....	....
Silverware, . . . . .	91.89	99.23	.....	....	8.11	.77	....	....
Stone-cutting and Quarrying, . . .	50.75	49.08	26.87	22.37	19.40	28.32	2.98	.23
Wood-working, . . . . .	76.00	80.33	5.60	10.48	17.60	8.90	.80	.29
Woolen Goods, . . . . .	45.94	66.49	6.76	8.38	47.30	25.13	....	....
Miscellaneous, . . . . .	77.32	74.54	4.12	11.09	17.53	10.08	1.03	4.29





## OPINIONS OF MANUFACTURERS

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### On the Effect of Weekly Payments and of the Change in the Factorizing Law.

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The General Assembly, which, in 1887, enacted a law requiring weekly payments by corporations, also raised the limit of exemption in processes of foreign attachment on a debt accruing for personal services to fifty dollars. The effect of the latter piece of legislation, coupled with the requirement of weekly payments, was practically a repeal of what is popularly known as the factorizing law, as the wage accumulations of a week rarely exceed the sum of fifty dollars. Both acts of legislation were adopted after an inquiry on the subject conducted by the Bureau of Labor Statistics, to which the subject had been referred by the General Assembly; and the avowed object of the legislation was to foster the system of cash transactions.

In the General Assembly of 1893 an attempt was made to re-enact, in a changed form, some features of the foreign attachment (or factorizing law) eliminated in 1887. Several bills and petitions were presented looking to modifications in the law, and a substitute bill providing that there be no exemption of wages from attachment for debt due for board, clothing, rent, medical services, or for the support of the debtor or his family, was passed by the House, but rejected by the Senate.

#### VIEWS ON WEEKLY PAYMENTS.

With a desire to ascertain the sentiment on this subject of those who pay wages, and also to gather from their observation the effect in the matter of cash transactions of the weekly payment law and of

the practical repeal of the factorizing law, a circular letter was addressed by the Bureau to about 200 manufacturers in the State. Replies available for use in this connection were received from 67 manufacturers. Summarized, thirty of those answering say that weekly payment is unqualifiedly beneficial, while eleven think it harmful, and six find no benefit in it. Two are opposed to it for no definite reason given. Two think it good for the provident workmen, and three find it harmful for the improvident. Three, who do not praise it, say they would not return to monthly payments; three others say that it prevents factorizing; one is satisfied with it, without other comment; one thinks that the matter of payments is a contract between employer and employe, not to be interfered with by legislation; one, who expresses no comment on the law, thinks that it should apply alike to all; and one reports that his employes prefer monthly payments. Of the twenty manufacturers who wrote in unqualified condemnation of weekly payments, thirteen reside in comparatively small towns, and fifteen are engaged in the textile industry.

#### OPINIONS ON THE FACTORIZING LAW.

On the subject of the factorizing law, fifteen express a desire that the law be retained in its present shape; nine regard the law as immaterial where wages are paid weekly; five think it of minor importance any way; one is indifferent on the matter; another would exempt "a fair sum" from attachment; and five regard a factorizing law in any shape as a hardship. On the other hand nine manufacturers express the opinion that the law, in its present shape, protects the dishonest workman and injures the small-trades people; six declare that it encourages dishonesty; and two advocate a return to the old law.

#### THE EFFECT ON CASH TRANSACTIONS.

Only nineteen of the sixty-seven express a positive opinion as to the effect of the legislation in question in the matter of cash transactions. Fifteen write that in their localities the legislation has certainly increased cash transactions; while four answer that in their observation that desired effect has not been realized.

The more interesting features and pointed opinions of the letters received are here presented :

PLYMOUTH.—Weekly payment is beneficial; it increases cash transactions and occasions less loss to merchants on account of bad debts.

DERBY.—The weekly payment law should be retained in its present shape. The factorizing law, as it now exists, protects only dishonest people, while it harms the small trades people.

HUNTINGTON.—Would not return to monthly or semi-monthly payments, believing that weekly payments are more satisfactory to all concerned. The factorizing law should not be changed. It was a hardship to merchants when it was enacted, but they all understand the law now, and if they see fit to give credit it should be at their own risk.

THOMPSON.—Would not return to monthly payments if the law should be repealed. Weekly payment does not insure cash transactions; "the credit system still prevails here to a large extent," and a change in the factorizing law would not materially change conditions.

TORRINGTON.—"This corporation adopted the weekly payment system long before the present law was enacted, for the purpose of putting our help in such position as to enable them to pay their bills promptly and to live on their income without running into debt. We had been considerably annoyed for years previous to that by factorizing processes and we wished to get clear of the annoyance, and, at the same time, put our help in better position. We are satisfied, however, that the weekly payment system, while it may have some advantages so far as the laboring class is concerned, still, is not on the whole any special advantage to them. There is a large class of help, in this town especially, who are forehanded and do not waste their money, and who get along just as well with monthly payments as with weekly payments, and would no doubt just as soon receive their pay once a month as four or five times a month. The operation of the compulsory weekly payment law with this class is of no special interest. There is another large class of help who are the kind that live from hand to mouth, and who waste a good part of their earnings in the saloons. I regret to say that this class is absolutely damaged by the weekly payment system, and I believe their families get less of their wages than they would if payments were made once a month." Indifferent as to the factorizing law, believing that "any employe who could not get along, having his money once a week, without being factorized, is not a proper person for us to employ."

MONTVILLE.—"The operation of weekly payments under our observation shows very conclusively that the employes *do not* lay aside the same amount of wages which they formerly did under monthly payments; and while they can purchase in a larger number of places, perhaps, we have yet to see any material benefit to the employed from being paid weekly. Those who drink do so the more frequently, and while they are supposed to more readily pay their debts, as a matter of fact, we think there are more bad bills contracted now than under monthly payments. We have carefully watched the effect of the so called factorizing law, and candidly confess that it most decidedly lowers the moral tone of a very large number; in fact, it is so considered by the bulk of mill help. To sum up the statement, we honestly think that if both the latter laws were wiped off the statute book our help would be *far* better off financially, while a moral improvement would become neces-

sary in their condition by the change of laws. By frequent payments unnecessary bills are contracted, and money wasted in drink and other dissipation, which results in debts contracted for necessities of life being evaded in payment if possible."

NEW MILFORD.—"We resorted to weekly payments here before there was ever a law requiring them. Our previous experience was that it worked to the detriment of the employe to receive his pay monthly, because it put him continually in debt to store keepers from whom he was purchasing, and by having him in their debt they took advantage on prices. Now, receiving his pay weekly, he is able to pay his bills promptly and trade where he can buy the cheapest; which right should always be within his power."

MERIDEN.—"Legislation should provide for the collection of all honest debts without oppressing the unfortunate."

SEYMOUR.—The law requiring weekly payments "should apply to individual employers as well as to corporations. Most laborers pay cash when receiving wages weekly," and "if all employes paid weekly the factorizing law would become obsolete so far as laborers are concerned. The law should not be repealed so far as others are concerned."

ANSONIA.—The change in the factorizing law has made more would-be "dead beats" than any legislation that has been enacted in years

NEW HARTFORD.—"The operation of the weekly payment law has been an injury to the laboring people. Our people have never been so well provided for, *as a whole*, as when we paid once a month, kept our accounts with the family instead of paying each individual, and paid once a month through what is called a company store."

NEW MILFORD.—As a company we like weekly payments; "but it is not as good for our employes as when we paid them bi-weekly. When the money is paid to them in small sums they do not save as much as they did when they received it in larger amounts. Many of them say this, and quite a number of them leave their weekly wages in the company's safe, and draw their money once or twice a month."

NEW LONDON.—"The weekly payment law seems to me of advantage both to employers and employes, as it enforces business promptness and rapid exchanges in general trade, thereby reducing risks. In my opinion the factorizing law operates as an indirect tax on the thrifty members of the community for the support of the others, as merchants have no recourse and must obtain higher prices from paying customers to balance increased losses incurred under the law. This law is therefore putting a premium on dishonesty and should be repealed."

WATERBURY.—"The weekly payment law has been detrimental to the improvident. It has been neither detrimental nor beneficial to the provident. It has, in some cases, been beneficial to very poor people working at very low wages, whose circumstances prevented them from getting money enough ahead to keep them alive for one month. In this part of the world there have been few such, the majority having acquired the habit of living on their previous month's wages until next pay day comes round, and thus always have had about a month's wages ahead, before the weekly law came in. I have not made up my mind on the factorizing law, as every law seems



to have some advantages and some disadvantages. If the sum exempted is high, it seems to have the effect of leading a good many hands into the paths of dishonesty. They find that they can cheat with impunity, and being tempted yield. Of course the people whom they cheat are usually grocers and small retail dealers or boarding-house keepers, no richer than the operatives. On the other hand, if a very small amount of wages is exempt from attachment, the hands become the prey of dishonest liquor-dealing grocers, who bring dishonest claims, attach the wages of the employes, and have them at their mercy, because the employe is often a man who spends a good deal of his money in drink, and has nothing ahead to support his family, cannot afford the delay or expense of hiring a lawyer to defend him, has no records which he can set up against the records of the grocer, has probably never heard of such a thing as a receipt for money paid, and has no recourse but to pay whatever the grocer demands. He cannot live if all his wages are held pending an appearance before a justice three weeks or more in the future."

CHESHIRE.—There is no need of a weekly payment law or of a factorizing law here. The employes prefer monthly payment, with the privilege of drawing money oftener if necessary.

COVENTRY.—Weekly payment benefits only the saloon keeper. The present factorizing law is a rank injustice to merchants, and of no benefit to an honest man.

WALLINGFORD.—The change in the factorizing law was wise, "as it has a tendency to make merchants more careful in extending credit, and works in two ways towards a cash basis."

TORRINGTON.—Weekly payments are bad for employes, who save less than under monthly payments. The change in the factorizing law has very materially aided people who do not wish to pay, and has made men dishonest. The two laws together have not, by any means, brought transactions to a cash basis.

NORFOLK.—Weekly payments, with the change in the factorizing law, have made a good change to cash basis in this vicinity.

WINDHAM.—The present factorizing law is in favor of the one who never intends to pay his bills if he can avoid it. Taken in connection with the weekly payment law, it seems to be wholly in favor of the laborer, and directly against the employer and the creditor.

BRIDGEPORT.—"Our concern was one of the first to adopt the weekly payment system in this state, and we have found it decidedly to our advantage. Where hands are paid every week there is no necessity for their getting trusted for any article; besides, we found when we paid monthly that the last ten days of the month, previous to pay day, we got 20 to 25 per cent. more work done than we did the first of the month. There seemed to be a feeling along the first of the month that their pay day was so far ahead that it mattered little whether they worked hard or not—but the last days of the month brought up the deficiency. Where you pay weekly this incentive comes every week; not only that, but any one can buy better for cash than they can to get trusted, if it is only for a month. We do not even find it more expensive to pay once a month, and I am certain it is much more sat-



isfactory to the hands. The factorizing law I believe to be an unjust law for the working people in very many instances—in fact, I might say in most instances. In our own factory it has worked to the disadvantage of the laborer. The employes had been encouraged by some shrewd salesman to run up a debt which they had no right to contract, and which they would not have contracted under ordinary circumstances. In their inability to pay it, the factorizing law was applied, which rendered it impossible for them to pay their debts which came due from week to week. Very often, too, they are factorized because of debts they had contracted before coming to Bridgeport, or in years past.”

STAMFORD.—“I believe that weekly payments are of no advantage to the higher class, and distinctly disadvantageous to the lower class of workmen. The former have accumulated earnings, which make them indifferent in the matter, while the latter are encouraged by weekly payments to the habit of spending each pay day more or less of their wages in drinking and extravagances, whereas, semi-monthly payments, recurring irregularly as to the days of the week, and with only half the frequency, have a much reduced effect in this direction. The weekly payment, therefore, seems to benefit chiefly the middle grade of working men who are provident, temperate, and who, not having accumulated means, are enabled by weekly payments to do more of their purchasing for cash. I am not familiar with the exact present status of the factorizing law, but in general believe that justice is promoted by reserving from attachment a small amount of wages. The prudent merchant will investigate credit before giving it. Those who fail to do this should not be favored at the expense of the wife and children of the wage earner.”

BERLIN.—“I believe that the weekly payment law is a good thing for the manufacturer and a good thing for the merchant, but I have some doubts about its being a good thing for the laboring man. I would say that if the law was repealed that this company would pay once a week, the same as now, as we like it better than the monthly pay system. It makes little or no difference to the better class of laborers, whether paid once a week, or once a month. They save their money, and, generally speaking, they pay cash for their supplies. On the other hand, in the case of the lowest class laborer, it don't make any difference to him whether he gets it once a week, once a day, or once a month—he squanders it all for rum and never pays a bill when he can dodge it.”

MANCHESTER.—A factorizing law seems to be essential to make people honest, and we should favor the law as it was five years ago.

VOLUNTOWN.—The better class of workmen are not materially affected by the weekly payment law, and the poorer class are injured by it. With weekly pay it is immaterial whether a factorizing law exists or not, as no operative would have enough due him at any one time to pay for the expense of attaching, and leave anything towards the claim.

WINDSOR LOCKS.—Weekly payments should lead to a repeal of the factorizing law, or to a reduction of the attachable amount to an extent to correspond with the change brought about by the weekly payment law.

DERBY.—“We find more difficulty in collecting accounts under the weekly payment system than when the men were paid monthly; the pay is so small that it is gone before they pay the rent. The factorizing law has not been of much benefit to the creditor. All kinds of labor receive their pay so often now that all merchants can adopt the cash plan without any hardship to the workingman. Giving credit is more apt to work an injury than benefit to the workingman.”

THOMASTON.—Would protect wages by a factorizing law, so that ordinary labor could not be touched; fifty dollars should be the lowest. Of course the effect of such legislation is in the direction of more cash transactions.

NORWICH.—“Only last week a man who has been many years in my employ said to me, as I handed him his weekly envelope, ‘Do you think that this weekly payment is any benefit?’ I said to him, ‘It is certainly no benefit to the company. Do you think it is any benefit to the help?’ And his answer was, ‘No, I don’t think we are as well off under it.’ Then I asked him if it was not true that, having only a small balance each week, most of the men frittered it away, and when they came to need an overcoat, or any unusual demand was made upon them, they could not readily meet it; and he said that was it exactly. I remarked that the expense to the company of the weekly payments would enable us to give every man in our employ an overcoat once in two years. This has been the testimony from time to time of many of my employes, and there was never to my knowledge any demand for weekly payment. Still I presume that to return to monthly payments would, by many, in the first instance, be considered a hardship. I consider the factorizing law to be of very minor importance. Employes who mean to pay their debts will usually do so, to the full extent of their ability, and those who do not will generally find some way to evade them.”

NEW BRITAIN.—We do not believe that weekly payment benefits the employes. In our experience “it increases idleness and dissipation, perhaps not in the proportion of four to one, but at least of two to one. We do not believe there is any possibility of change in the law, and from our own selfish standpoint we do not want any.”

NEW HAVEN.—The operation of the weekly payment law and the change in the factorizing law are beneficial in several respects, and are the basis of highest advantages in cash transactions.

HARTFORD.—Weekly payments are a disadvantage, giving the employer unnecessary work, and giving the employes their money in small amounts, which are liable to be spent before the larger bills, such as rent, become due.

NORWICH.—“The weekly payment law has proven a delusion and a snare. It has not brought the wage earner more money, but more small change and more temptation to spend, with less inducements to save, and in this way only has it stimulated cash transactions—till there is no cash. The factorizing law shields the unprincipled and tricky rather than assists the upright, puts a premium on dishonesty and lessens the thrift and credit of the laborer, and thereby his self respect. All these swollen theories and beneficent laws are conceived by un-American labor, unions and agitators, and fathered and promoted by such petty philanthropists, demagogues and

legislators as are unacquainted with labor, and would rather live on labor than by labor."

BARKHAMSTED.—Am opposed to weekly payments and in favor of a change in the factorizing law. Let merchants restrict credit in doubtful cases, and manufacturers will give weekly aid as each case may require.

PLAINVILLE.—The weekly payment law should be made operative with all manufacturing companies, whether stock or private companies. "We do not see the sense of compelling incorporated companies to pay weekly and allowing private companies to do as they please." The factorizing law as at present hurts the honest man; while such a law is in force he has to take his place with the beats of the town in many necessary transactions. Dishonest people should not be protected.

BRANFORD.—The nearer to cash that any business is conducted the better for all concerned, though it may appear that the employer and employe should be at liberty to make such contracts as they wish.

NORWICH.—Weekly payments have been a serious damage to our employes and has a tendency to keep them poor.

STAFFORD.—Do not believe in weekly payments. Help have more money at the end of the year if paid monthly. The factorizing law should be changed and ample protection given merchants. Do not believe in giving the shiftless element the chance to take advantage of those who pay their bills.

SALISBURY.—Weekly payments are not desirable for the workingmen, as they spend much more money foolishly with four payments monthly than with one. The old factorizing law is preferred. If a man is not honest he should be made to pay his bills by law.

TRUMBULL.—Weekly payments probably increase the number of cash transactions and are therefore better for the workmen. "There should be no power to touch a workman's wages. A creditor should look to other sources or other means for his debt."

MERIDEN.—"The operation of weekly payments law here in Connecticut seems to me to be of very little value to our employes, and adds to the trouble and expense of manufacturers in making up pay-rolls and distributing the money. If laborers can be promptly paid every thirty days it seems to me they ought to be able to live comfortably. I never was friendly to any legal aid to a man disinclined to pay his debts. Ninety-nine out of every hundred who use it are chronic believers in the claim that the world owes them a living and they are going to have all they can get within the limit of the law."

MIDDLETOWN.—"In regard to the weekly payment law I cannot learn that it has been in any case a benefit to the class in whose favor it was enacted. Our very best hands say that now at the end of a week they have only a little small change left, and they never get a five dollar note to lay by; while it goes without saying that with the vicious and spendthrift the possibility of saving is eliminated. With monthly payments a good hand, at the end of the month, had enough ahead to buy a whole suit of clothes, or a piece of furniture, or something that was wanted, and I think that if the operatives could be polled on the question of weekly and monthly payments,

and could decide the matter without class influence, they would be largely in favor of monthly payments. Finally, I think the factorizing law an advantage to the operatives in the case of monthly payments, enabling them to get credit which is not needed under the weekly payment law."

PLAINVILLE.—Think weekly payment a detriment to the majority of laborers. The American people, as a rule, spend money freely if they have it about them. There ought to be a factorizing law for the benefit of the retail merchants, and none but dead beats will object to such a law.

NAUGATUCK.—Weekly payment and the change in the factorizing law are decidedly beneficial, not only to the employe, but to all the citizens in our manufacturing community.

STAMFORD.—Do not think that the change in the factorizing law has resulted in good, nor has it increased cash transactions.

MANCHESTER.—"Are not sure that in the long run the employes have been benefitted by receiving their wages weekly instead of monthly. Think both store-keepers and working people can maintain better relations without a factorizing law."

LITCHFIELD.—Believe that, all things considered, weekly payments are to the advantage of the workingman, perhaps to a greater degree than to the disadvantage of the employer. "While we find in our village that the workmen still buy on credit, yet the amount of cash transactions is undoubtedly somewhat larger than under the old system."





## HOURS OF LABOR IN THE BUILDING TRADES.

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In recent years the men employed in the building trades have persistently fought for fewer daily hours of labor, even resorting in frequent instances to strikes, in a determined endeavor to accomplish their purpose. The struggle, tentatively successful in some localities, is continued in other places, notably in the larger cities and towns where numbers give strength to the opposing forces—the contractors and the trade unions. The inquiry instituted by the Bureau into this subject was confined to the cities and towns of Connecticut having a population, according to the last census, of 5,000 or over. There are thirty such towns in the State, and as there are not sufficient building trades people in one of the thirty to warrant a report, the returns are confined to twenty-nine towns.

The information sought was the prevailing hours of labor in each of the building trades, the average daily wages paid in each, and the extent to which the employes in each were organized. The information was obtained in a general way from both contractors and employes, but the inquiry was sufficiently extensive and searching to secure accuracy of results.

The daily hours of labor in the building trades in Connecticut are nine or ten; no instance being reported, in this State, of an eight-hour day, which has been secured, in rare cases, in other States. Classifying the towns by trades as nine-hour or ten-hour towns, and it is seen that the brick-layers and their helpers, the mason-tenders, have obtained the nine-hour day in a larger proportion of towns than any of their fellow workers in building construction. The brick-layers and mason-tenders work nine hours daily in fifteen of the twenty-nine towns from which reports are presented.

Stone masons work nine hours in fourteen towns and ten hours in fourteen other towns, the hours of labor in one town varying from nine to ten. Lathers work nine hours in fourteen of the twenty-five towns reporting that class of trades-people. Carpenters have obtained the nine-hour day in twelve of the twenty-nine towns, and in one other town some of them work nine hours. Painters in eleven towns work nine hours, and in one other town part of the painters have the nine-hour day. Twenty-seven towns report regarding plumbers, and in ten of these the nine-hour day prevails. Of the seven towns in which resident slaters are found, six report nine hours the rule; and of the twenty-five towns from which tin and sheet-iron workers are reported, nine have the nine-hour day.

#### TRADE ORGANIZATION AND THE SHORTER DAY.

The returns show an intimate connection between short hours and organization. The short day is found in towns and trades where the trade organization is not reported, but in the majority of cases, the ten hour towns are the non-union towns. This may be better illustrated in this tabular form:

	NINE-HOUR TOWNS.			TEN-HOUR TOWNS.	
	All Union.	Part Union.	Non-Union.	Non-Union.	Part Union.
Bricklayers, . . . . .	2	10	3	14	....
Carpenters,* . . . . .	1	8	3	14	2
Lathers, . . . . .	1	2	11	11	....
Masons,† . . . . .	2	10	2	14	....
Masons' Tenders, . . . .	2	4	9	14	....
Painters,* . . . . .	2	6	3	15	2
Plumbers, . . . . .	1	3	6	17	....
Slaters, . . . . .	0	2	4	1	....
Tin and Sheet-iron Workers,	1	2	6	16	...

The building trade unions are strongest in Hartford and New Britain, and in those cities the nine-hour day is the rule in all the building trades. Nine hours also prevails in all the building trades

\* In one part union town, some at nine hours.

† In one non-union town, some at nine hours.

in Meriden, Bridgeport and Norwich, in each of which cities the majority of the trades are partially organized in unions. In New London there are more building workers outside of the unions than in the unions, and yet the nine-hour day prevails there.

#### LITTLE EFFECT OF ORGANIZATION ON WAGES.

There is no evidence that organization has had any effect in the raising of wages, except perhaps slightly and relatively where the daily pay formerly received for ten hours labor is now paid for nine hours work. There is no material difference in the daily wages between towns where the unions are strong and towns where the unions are weak or do not exist.

Recent inquiries on the subject of hours of labor in the building trades have been made in Rhode Island, Michigan and Ohio. The manner of presentation of the Rhode Island returns makes comparison with Connecticut difficult. In Michigan, according to a report of the Labor Bureau of that State for 1893, the average daily hours worked by all the building trades in eight cities were 9.4 in winter and 9.9 (practically ten hours) in summer. In Ohio, as reported by the Bureau of that State in 1892, the daily hours were as a rule ten, except in towns where the trades were organized, and in those towns the hours varied from nine to nine and a half. The carpenters and bricklayers were the better organized, and had obtained the nine-hour day in many places, while there were isolated reports of an eight-hour day for bricklayers.

The detailed figures, from which the preceding deductions concerning Connecticut have been made, here follow :

## BRICKLAYERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	\$ 3.50-4.50	Union.
Bristol, . . . .	9	....	3.50	Part Union.
Enfield, . . . .	9	....	3.50	Non-union.
Manchester, . . . .	10	.30	3.00	" "
New Britain, . . . .	9	.40	5.60	Union.
Southington, . . . .	10	.30	3.00	Non-union.
NEW HAVEN COUNTY.				
New Haven, . . . .	9	.40	3.60	Part Union.
Ansonia, . . . .	10	.35	3.50	Non-union.
Derby, . . . .	10	.35	3.50	" "
Meriden, . . . .	9	.40	3.60	Part Union.
Naugatuck, . . . .	10	.35-.40	3.50-4.00	Non-union.
Wallingford, . . . .	9	.40	3.60	" "
Waterbury, . . . .	10	.30 to .35	3.00 to 3.50	" "
FAIRFIELD COUNTY.				
Bridgeport, . . . .	9	....	3.50	Part Union.
Danbury, . . . .	10	.35	3.50	Non-union.
Greenwich, . . . .	9	....	3.50	Part Union.
Norwalk, . . . .	9	....	3.50	" "
Stamford, . . . .	9	....	3.50	" "
NEW LONDON COUNTY.				
New London, . . . .	9	....	3.50	Part Union.
Groton, . . . .	10	.30-.40	3.00-4.00	Non-union.
Norwich, . . . .	9	....	3.50	Part Union.
Stonington, . . . .	10	.37½-.40	3.75-4.00	Non-union.
WINDHAM COUNTY.				
Windham, . . . .	10	....	3.50	Non-union.
Killingly, . . . .	10	....	3.00-3.50	" "
Putnam, . . . .	10	....	3.00	" "

## BRICKLAYERS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . .	10	.30	3.00	Non-union.
Winchester, . . .	10*	.30	3.00	" "
MIDDLESEX COUNTY.				
Middletown, . . .	9	....	3.50	Part Union.
TOLLAND COUNTY.				
Vernon, . . . .	9	....	3.50	Non-union.

\* Nine hours on Saturday.



## CARPENTERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	\$ 2.75-3.00	Union.
Bristol, . . . .	10	.30	3.00	Part Union.
Enfield, . . . .	9	....	2.50	Non-union.
Manchester, . . . .	10	.20-.30	2.00-3.00	" "
New Britain, . . . .	9	. . .	2.00 to 2.75	Part Union.
Southington, . . . .	10	.27½	2.75	Non-union.
NEW HAVEN COUNTY.				
New Haven, . . . .	9-10	....	2.00-3.00	Part Union.
Ansonia, . . . .	10	.22½-.27½	2.25-2.75	Non-union.
Derby, . . . .	10	.20-.30	2.00-3.00	" "
Meriden, . . . .	9	...	2.00 to 3.25	Part Union.
Naugatuck, . . . .	10	.20-.27½	2.00-2.75	Non-union.
Wallingford, . . . .	9	....	2.25-3.00	" "
Waterbury, . . . .	10	.20-.30	2.00-3.00	" "
FAIRFIELD COUNTY.				
Bridgeport, . . . .	9	....	2.50	Part Union.
Danbury, . . . .	10	.35	3.50	Non-union.
Greenwich, . . . .	9	....	2.75	Part Union.
Norwalk, . . . .	9	....	2.50	" "
Stamford, . . . .	10	....	2.75	" "
NEW LONDON COUNTY.				
New London, . . . .	9	...	2.00-2.75	Part Union.
Groton, . . . .	10	.20-.27½	2.00-2.75	Non-union.
Norwich, . . . .	9	....	2.25	Part Union.
Stonington, . . . .	10	.20-.25	2.00-2.50	Non-union.
WINDHAM COUNTY.				
Windham, . . . .	10	....	2.25-2.50	Non-union.
Killingly, . . . .	10	....	2.00-2.50	" "
Putnam, . . . .	10	....	2.25-2.50	" "

## CARPENTERS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . .	10	.22½	2.25	Non-union.
Winchester, . . .	10	.25	2.50	" "
MIDDLESEX COUNTY.				
Middletown, . . .	9	....	2.25-2.75	Non-union.
TOLLAND COUNTY.				
Vernon, . . . .	9	....	2.00	Part Union.

## LATHERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Bundle.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	\$ 3.00	Union.
Bristol, . . . .	9	....	2.25	Non-union.
Enfield, . . . .	9	....	2.25	" "
Manchester, . . .	10	.18	2.50	" "
New Britain, . .	9	....	2.50	" "
Southington, . .	10	.22½	2.25	" "
NEW HAVEN COUNTY.				
New Haven, . . .	9	.15-.17	.....	Non-union,
Ansonia, . . . .	10	.14-.18	.....	" "
Derby, . . . . .	10	.15 to .18	.....	" "
Meriden, . . . .	9	.14 to .16	.....	" "
Naugatuck, . . .	10	.16-.18	.....	" "
Wallingford, . .	9	.19	.....	" "
Waterbury, . . .	10	.15 to .18	.....	" "
FAIRFIELD COUNTY.				
Bridgeport, . . .	9	.15-.20	.....	Part Union.
Danbury, . . . .	10	.15	.....	Non-union.
Greenwich, . . .	9	.20	.....	" "
Norwalk, . . . .	9	.15	.....	" "
Stamford, . . . .	9	.16	.....	" "
NEW LONDON COUNTY.				
New London, . . .	9	.16	.....	Non-union.
Groton, . . . . .	.....	.18	.....	" "
Norwich, . . . .	9	.16	.....	Part Union.
Stonington, . . .	.....	.18	.....	Non-union.
WINDHAM COUNTY.				
Windham, . . . .	.....	.16	.....	Non-union.
Killingly, . . . .	10	.16-.18	.....	" "
Putnam, . . . . .	.....	.16-.18	.....	" "

## LATHERS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Bundle.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . .	10	....	\$ 3.00	Non-union.
Winchester, . . .	10	....	3.00	" "
MIDDLESEX COUNTY.				
Middletown, . . .	10	.18	.....	Non-union.
TOLLAND COUNTY.				
Vernon, . . . .	9	.17	.....	Non-union.

## MASONS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	\$ 3.50-4.50	Union.
Bristol, . . . .	9	....	3.50	Part Union.
Enfield, . . . .	9	....	3.50	Non-union.
Manchester, . . . .	10	.30	3.00	" "
New Britain, . . . .	9	....	3.50	Union.
Southington. . . .	10	.35	3.50	Non-union.
NEW HAVEN COUNTY.				
New Haven, . . . .	9	.40	3.60	Part Union.
Ansonia, . . . .	10	.35	3.50	Non-union.
Derby, . . . .	10	.35	3.50	" "
Meriden, . . . .	9	.40	3.60	Part Union.
Naugatuck, . . . .	10	.35-.40	3.50-4.00	Non-union.
Wallingford, . . . .	9	.40	3.60	" "
Waterbury, . . . .	10	.30-.35	3.00-3.50	" "
FAIRFIELD COUNTY.				
Bridgeport, . . . .	9	....	3.50	Part Union.
Danbury, . . . .	10	.35	3.50	Non-union.
Greenwich, . . . .	9	....	3.75	Part Union.
Norwalk, . . . .	9	....	3.50	" "
Stamford, . . . .	9	....	3.50	" "
NEW LONDON COUNTY.				
New London, . . . .	9	....	3.50	Part Union.
Groton, . . . .	10	.30-.40	3.00-4.00	Non-union.
Norwich, . . . .	9	....	2.50	Part Union.
Stonington, . . . .	10	.37½-.40	3.75-4.00	Non-union.
WINDHAM COUNTY.				
Windham, . . . .	10	....	3.50	Non-union.
Killingly, . . . .	10	....	2.50-3.00	" "
Putnam, . . . .	10	....	3.00	" "



## MASONS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . .	10	.30	\$ 3.00	Non-union.
Winchester, . . .	10	.30	3.00	" "
MIDDLESEX COUNTY.				
Middletown, . . .	9	....	3.50	Part Union.
TOLLAND COUNTY.				
Vernon, . . . .	9-10	....	2.50	Non-union.

## MASONS' TENDERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZA- TION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	\$2.00-2.25	Union.
Bristol, . . . .	9	....	2.00	Non-union.
Enfield, . . . .	9	....	2.00	" "
Manchester, . . .	10	.17½-.20	1.75-2.00	" "
New Britain, . .	9	....	2.25	Union.
Southington, . .	10	.17½	1.75	Non-union.
NEW HAVEN COUNTY.				
New Haven, . . .	9	....	1.50-2.00	Part Union.
Ansonia, . . . .	10	.17½	1.75	Non-union.
Derby, . . . .	10	.20	2.00	" "
Meriden, . . . .	9	....	2.00 to 2.15	Part Union.
Naugatuck, . . .	10	.20-.22½	2.00-2.25	Non-union.
Wallingford, . .	9	....	1.75-2.00	" "
Waterbury, . . .	10	.15-.17½	1.50-1.75	" "
FAIRFIELD COUNTY.				
Bridgeport, . . .	9	.25	2.25	Part Union.
Danbury, . . . .	10	.20	2.00	Non-union.
Greenwich, . . .	9	....	2.00	" "
Norwalk, . . . .	9	....	2.00	" "
Stamford, . . . .	9	....	2.00	" "
NEW LONDON COUNTY.				
New London, . .	9	....	2.00	Non-union.
Groton, . . . .	10	.15-.20	1.50-2.00	" "
Norwich, . . . .	9	....	2.00	Part Union.
Stonington, . . .	10	....	1.75	Non-union.
WINDHAM COUNTY.				
Windham, . . . .	10	....	2.00-2.25	Non-union.
Killingly, . . .	10	....	1.75-2.25	" "
Putnam, . . . .	10	....	1.50-1.75	" "

## MASONS' TENDERS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZA- TION.
		Per Hour.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . .	10	.17½	\$1.75	Non-union.
Winchester, . . .	10	.17½	1.75	" "
MIDDLESEX COUNTY.				
Middletown, . . .	9	.20	1.80	Non-union.
TOLLAND COUNTY.				
Vernon, . . . .	9	....	1.50-1.87	Non-union.

## PAINTERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZA- TION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	\$2.50-2.75	Union.
Bristol, . . . .	10	.25	2.50	Non-union.
Enfield, . . . .	9	....	2.50	" "
Manchester, . . . .	10	.25	2.50	" "
New Britain, . . . .	9	....	2.50	Union.
Southington, . . . .	10	.25	2.50	Non-union.
NEW HAVEN COUNTY.				
New Haven, . . . .	9-10	....	2.50-3.15	Part Union.
Ansonia, . . . .	10	.22½-.27½	2.25-2.75	Non-union.
Derby, . . . .	10	.20-.27½	2.00-2.75	" "
Meriden, . . . .	9	....	2.50 to 3.00	Part Union.
Naugatuck, . . . .	10	.20-.25	2.00-2.50	Non-union.
Wallingford, . . . .	9	....	2.25-2.50	" "
Waterbury, . . . .	10	.20-.27½	2.00-2.75	Part Union.
FAIRFIELD COUNTY.				
Bridgeport, . . . .	9	....	2.50	Part Union.
Danbury, . . . .	10	.27½	2.75	" "
Greenwich, . . . .	10	.25	2.50	Non-union.
Norwalk, . . . .	9	....	2.50	Part Union.
Stamford, . . . .	10	.30	3.00	Non-union.
NEW LONDON COUNTY.				
New London, . . . .	9	....	2.00-2.50	Part Union.
Groton, , . . . .	10	.20-.25	2.00-2.50	Non-union.
Norwich, . . . .	9	....	2.25-2.50	Part Union.
Stonington, . . . .	10	.25	2.50	Non-union.
WINDHAM COUNTY.				
Windham, . . . .	10	....	2.25-2.50	Non-union.
Killingly, . . . .	10	....	2.00-2.50	" "
Putnam, . . . .	10	....	2.00	" "

## PAINTERS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZA- TION.
		Per Hour.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . . .	10	.22½	\$2.25	Non-union.
Winchester, . . . .	10	.30	3.00	" "
MIDDLESEX COUNTY.				
Middletown, . . . .	9	....	2.00-2.50	Non-union.
TOLLAND COUNTY.				
Vernon, . . . .	9	....	2.00	Part Union.



## PLUMBERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	2.75-3.00	Union.
Bristol, . . . .	10	.32½	3.25	Non-union.
Enfield, . . . .	10	.35	3.50	" "
New Britain, . . .	9	....	2.75	" "
Southington, . .	10	.30	3.00	" "
NEW HAVEN COUNTY.				
New Haven, . . .	9	....	2.25-3.00	Part Union.
Ansonia, . . . .	10	.25-.30	2.50-3.00	Non-union.
Derby, . . . .	10	.27½-.30	2.75-3.00	" "
Meriden, . . . .	9	....	2.75 to 3.00	Part Union.
Naugatuck, . . .	10	.22½-.27½	2.25-2.75	Non-union.
Wallingford, . .	10	.27½-.32½	2.75-3.25	" "
Waterbury, . . .	10	.22½-.27½	2.25-2.75	" "
FAIRFIELD COUNTY.				
Bridgeport, . . .	9	....	3.00	Non-union.
Danbury, . . . .	10	.35	3.50	" "
Greenwich, . . .	9	....	3.00	" "
Norwalk, . . . .	10	.30	3.00	" "
Stamford, . . . .	10	.30	2.00	" "
NEW LONDON COUNTY.				
New London, . . .	9	....	3.50	Non-union.
Groton, . . . .	10	.30	3.00	" "
Norwich, . . . .	9	....	3.00	Part Union.
Stonington, . . .	10	.27½-.30	2.75-3.00	Non-union.
WINDHAM COUNTY.				
Windham, . . . .	10	....	2.50-3.00	Non-union.
Putnam, . . . .	10	....	3.50	" "

## PLUMBERS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . .	10	.30	3.00	Non-union.
Winchester, . . .	10	.30	3.00	" "
MIDDLESEX COUNTY.				
Middletown, . . .	9	....	2.25-3.00	Non-union.
TOLLAND COUNTY.				
Vernon, . . . .	9	....	3.00	Non-union.

## SLATERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	2.50-2.75	Non-union.
NEW HAVEN COUNTY.				
New Haven, . . . .	9	....	2.50-3.50	Part Union.
FAIRFIELD COUNTY.				
Bridgeport, . . . .	9	....	2.50	Non-union.
Norwalk, . . . .	10	.30	3.00	" "
Stamford, . . . .	9	.39	3.50	" "
NEW LONDON COUNTY.				
New London, . . . .	9	....	3.50	Non-union.
Norwich, . . . .	8	....	3.00-3.25	Part Union.

## TIN AND SHEET-IRON WORKERS.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
HARTFORD COUNTY.				
Hartford, . . . .	9	....	2.50-2.75	Union.
Bristol, . . . .	10	.27½	2.75	Non-union.
Manchester, . . . .	10	....	2.00-2.50	" "
New Britain, . . . .	9	....	2.50	" "
NEW HAVEN COUNTY.				
New Haven, . . . .	9	....	2.00-3.00	Part Union.
Ansonia, . . . .	10	.22½-.30	2.25-3.00	Non-union.
Derby, . . . .	10	.20-.30	2.00-3.00	" "
Meriden, . . . .	9	....	2.00 to 3.00	" "
Naugatuck, . . . .	10	.20-.25	2.00-2.50	" "
Wallingford, . . . .	10	.20-.30	2.00-3.00	" "
Waterbury, . . . .	10	.20-.27½	2.00-2.75	" "
FAIRFIELD COUNTY.				
Bridgeport, . . . .	9	....	2.75	Non-union.
Danbury, . . . .	10	.27½	2.75	" "
Greenwich, . . . .	10	....	3.25	" "
Norwalk, . . . .	10	.25	2.50	" "
Stamford, . . . .	10	.25	2.50	" "
NEW LONDON COUNTY.				
New London, . . . .	9	....	3.00-3.50	Non-union.
Norwich, . . . .	9	....	2.50-3.00	Part Union.
WINDHAM COUNTY.				
Windham, . . . .	10	....	1.50-2.50	Non-union.
Killingly, . . . .	10	....	3.00	" "
Putnam, . . . .	10	....	2.25-2.50	" "

## TIN AND SHEET IRON WORKERS.—CONCLUDED.

	HOURS OF LABOR PER DAY.	AVERAGE WAGES.		ORGANIZATION.
		Per Hour.	Per Day.	
LITCHFIELD COUNTY.				
Torrington, . . . .	10	.30	3.00	Non-union.
Winchester, . . . .	10	.30	3.00	“ “
MIDDLESEX COUNTY.				
Middletown, . . . .	9	....	2.00-3.00	Non-union.
TOLLAND COUNTY.				
Vernon, . . . . .	9	....	2.00	Non-union.



## VIEWS OF WORKINGMEN.

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The views of contractors and of building trade workers in the several towns were asked as to the desirability of a nine-hour day, as to the effect of reduced hours on building operations, and also as to the physical and moral effect. The contractors are more familiar with the pen than are the workers, and the bulk of the answers received is from the builders. Naturally the workers who answered the inquiries are unanimously in favor of the shorter day. Their testimony is that reduced hours of labor, while causing no restraint in building operations, have broadened the opportunities for labor, have made the workers more contented and vigorous, and by giving them opportunity for moral and mental improvement have made them better citizens. Some assert that the men do as much work in nine hours as they did in ten, and one replies that though the quantity of work done daily may be a trifle less the quality has been much improved. The more interesting of the written views of the workers are here culled :

**WATERBURY.**—Shorter hours would be beneficial to the workman because he would have opportunities for rest, mental development and social intercourse. A man who works ten hours a day, exposed as we are to the intense heat of the summer and the severe cold of winter, is in a very poor condition to enjoy these privileges, which he should have, not for his own good only, but for the good of society. The employer would be benefitted, because the men would be better fitted for their work. A little less might be accomplished in a day, but the quality of the work done would be vastly improved. Again, improved conditions would call into the building trade a better class of workmen. Property owners would be benefitted, as their work would be better done by a more intelligent class of workmen.

**NORWICH.**—In my opinion reduced hours of labor have had no bad effect. During the past two years, or since the building trades worked nine hours daily, more building has been done in this vicinity than in at least the ten years previous. The men are more contented, and I think they do as much work as when they worked ten hours per day. Wages have advanced at least an average of ten per cent. As to the moral and physical effect I do not see any materially; only when you see men gathering at the job in the morning they look as if they got up before breakfast, and they were more generally on time.

**NORWALK.**—The effect of reduced hours has been a benefit to the men. It permits us to make full time all the year, instead of working short hours in winter. All the buildings projected before the reduction in hours have been built. If a man is inclined to be dissipated he will find the time whether the hours of labor be four or fourteen.

**NEW BRITAIN.**—The change from ten to nine hours has been very satisfactory. The contractors lose very little, as nine out of ten men do in nine hours as much work as they did in ten, by attending more closely to it and doing more hustling with the nine hour rule. The building trades are now more nearly equal with the shops regarding hours, as we have, as a rule, to go farther to our work. The leisure time gained per day is not abused. As far as I have noticed that hour, as a rule, is spent at home.

**BRIDGEPORT.**—Reduced hours of labor gives more men employment. It hasn't made much difference in wages with us. We worked ten hours per day at twenty-five cents per hour, which was \$2.50 per day or \$15.00 per week. The time was reduced to nine hours and we are now getting twenty-seven and one-half cents per hour, or \$14.75 per week, so we now have the benefit of the hour and lose only two and a half cents per day. The moral effect depends upon what a man is in himself. If he is bad, with reduced hours of labor he has more time to indulge in his evil inclinations. Reduced hours to the industrious man means more time for improving himself, his family and his home. Reduced hours also mean more rest, and more recreation both to body and mind, giving him a better chance to enjoy life, and at the same time enabling him to do justice to his employer.

**HARTFORD.**—We believe that a reduction in the hours of labor leads to a more equal distribution of the opportunity for labor. We know from experience that such reduction has no restraint on building operations, and that the material cost, added to the cost of the labor on a home, would be very little in comparison to the benefit the workman receives by a reduction in the hours of labor. We believe that a reduction in the hours of labor would tend to raise wages, and would allow more time for the development of the moral qualities, thus making the man a better citizen and more useful to the community. The moral standing of a community is highest where the people work the least hours and receive the highest pay. Therefore, we believe that a reduction of the hours of labor is placing the lever of civilization under the humblest man, giving him a fairer compensation for the labor he performs, and lifting him up to the enjoyment of the opportunities of civilization.

**HARTFORD.**—Shortening the hours of labor is a benefit financially by increasing the demand for labor, and morally by giving the man more time to read, to talk and to study, thus advancing his thoughts, brightening his ideas and making a better man of him.

**NEW BRITAIN.**—The reduction from ten to nine hours has not caused the withdrawal of money from investment in building. On the contrary building has increased each year since the adoption of the nine-hours day. The wages have not been lowered. The physical effect is good, as the workman enters upon his duties with increased vigor, and the morals of the workman are equally as good as under the ten hour day.

## VIEWS OF BUILDERS.

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The majority of the builders who reply are opposed to a reduction of hours. The effect, they say, is to increase the cost of construction and to lessen profits, and consequently to decrease the amount of building operations and to reduce the yearly earnings of the workers. Many of them assert that the statement that men do as much work in nine hours as they did in ten hours is fiction. Per contra, six contractors declare their preference for the short day, while two others think that eight hours daily is sufficient. Three would be satisfied with reduced hours at a corresponding reduction in pay, and one believes that the shorter day would be a benefit to both the builders and the workers in the cities where building operations are practically continuous regardless of the seasons. Two report that in their localities the reduction in hours has not retarded building operations. As to the moral and physical effect, one contractor finds it good for the better class, another finds it bad, and a third sees no direct effect. The others who touch on this phase of the subject generally agree that the increased leisure time is of no advantage to the prudent and industrious man, but is of positive disadvantage to the imprudent. Here follow some of the more interesting of the views offered :

NEW BRITAIN.—The men get more money for less time, but do not earn any more per day. The change to nine hours has, I think, increased the cost of work, but it does not seem to retard building operations for any length of time. I do not think that shortening the hours of labor makes any material difference in the moral or physical welfare of the men. Men who are disposed to save their earnings and try to improve their circumstances will do so if they work eight, nine or ten hours. The shiftless and hand-to-mouth man will not be benefitted by shortening the hours of labor, or by an increase of wages. He will continue to waste his time and money as it comes under his control.

SOUTH NORWALK.—A reduction in the hours of labor is seriously disastrous to all concerned. People will not build except when absolutely necessary, feeling that such reduction of hours is uncalled for and wholly unjust, causing a falling off of at least fifty per cent. The employer or contractor is crippled on account of scarcity of contracts as well as by

the competition growing out of the agitation of the labor question. As to the men themselves I think they are proportionately the greater sufferers. I think also the moral effect is disastrous. The men leave their homes about the same time as before, and do not return any sooner, if as soon. The shorter hours give them leisure which, in a great many cases, is spent in a way not conducive to mental or moral improvement, and decidedly unfitting them for work. There is not as much done per hour as before by from fifteen to twenty per cent. owing to bickerings, society arguments and a general lassitude due to sitting on benches for so long a time.

MERIDEN.—Expense of management, interest, taxes, etc., do not change whether the hours of production are ten or less per day. So the percentage of management which enters into the building contract work is increased by the reduction in the hours worked per day. Some men doubtless use the reduced time to advantage, but I think these would all be better off if they worked the other hour and received pay for it. Some men waste this hour and waste or foolishly spend more money than they would if they worked ten hours per day. On the whole I think the short day is of no advantage to the prudent and industrious man, while it is a positive disadvantage to the imprudent and wasteful man. With ten hours as a day's work we could do for \$98,000 what we now charge \$100,000 for, and in much quicker time. Our masons would probably average about \$75 and our laborers about \$40 to \$50 more wages annually than they do now. Short hours increase the cost of work to our clients, increase the amount expended unprofitably by some of our workmen, decrease the annual earnings of our workmen, and decrease the profits of our business.

ROCKVILLE.—I pay the same for nine hours as I did for ten, and I have no more trouble with my customers than under the ten hours system. As for myself, I think that eight hours a day is enough.

SOUTH NORWALK.—The statement that men can do in nine hours the work they would do in ten is a farce, as far as my experience goes. The change from ten to nine hours influenced some people not to build, but this is only temporary. The moral and physical effect in the better class is good, because they know the value of time, but I do not see any good to the majority from the change.

MERIDEN.—Reduced hours of labor are detrimental. So much time is occupied with the preparation of material that, on a nine-hour basis, no laborer works in actual construction on the building more than eight hours. The labor agitation of '92 and '93 has driven out much business. The intimated carpenters' demand in April, 1892, pigeon-holed lots of plans in architects' offices. The dullness of building business, which would have existed in Meriden even with the financial condition in the normal state, is entirely attributable to labor agitation. Most of the buildings erected are by factory employes, themselves wage earners, and all of them understand that at \$3.60 per day for masons and \$2.15 per day for building laborers, the wages are as much too high on a just wage basis as their own are too low. To the class of men we employ I can state from close observation that every holiday is a financial detriment. As a class they would be better



off at the end of the year, physically and morally, on a ten rather than a nine-hour day.

NAUGATUCK.—I am in favor of shorter hours, providing the builders are given ample time to finish all contracts entered into under the old system.

TORRINGTON.—The hours of labor cannot be reduced without a corresponding reduction in a day's wages. That is certainly low enough now, and a reduction would lessen the chances of the workingman of obtaining a home of his own. Neither would his chance be enhanced by the reduction of hours at the same pay, as his home would cost so much the more.

SOUTH MANCHESTER.—Outside of large towns and cities short hours would not be of benefit. Short hours would not increase the value of labor; more men would be required to do a job in a given time, but all building work ceases in the country towns during the winter months, so that the workmen would be no better off at the end of the year under the nine-hour system. In large cities I think shorter hours would be a benefit both to employer and employe.

WILLIMANTIC.—I am in favor of nine hours, particularly in the building trades, as this is the number of hours daily that men employed in those trades can work all the year round.

PUTNAM.—If builders on contracts could get prices so that they could afford to pay their men one tenth or one fifth more for the same work, and the men would improve their leisure time, I would not object to shorter hours, as I believe that it is not all of life to work. I do not believe that men, as a rule, will do ten hours work in eight hours, so we must pay more for the same work, and this will come hardest at first on the contractor. I do not think that ten hours a day is too long to work. With good habits work does not hurt.

STONINGTON.—If the hours of a day's labor be reduced and the pay be kept the same, it will increase the cost of building. This would tend to restrict the amount of building. If the pay is reduced in proportion to the hours, no benefit would result to the workmen.

BIRMINGHAM.—Shorter hours would result in better building and better mechanics. As it is now, the contractor pushes his men right along, and when he sees one of them getting tired he discharges him and hires a fresh one in his place.

WINSTED.—I think that eight or nine hours per day is enough for anyone to work if they will work earnestly during that time. I am hoping for the time when builders can earn enough in eight hours per day.

BRISTOL.—My employes all work ten hours a day, and I think that should be the rule so long as men in shops have to work ten hours. The men in the building trades earn larger wages than the men in the shops, and the shop men are the ones who employ us largely. It does not hurt men half as much to work as to be idle and carousing.

MERIDEN.—One effect of the reduced hours is to increase wages; that is the mechanic receives the same remuneration for a less amount of work. The price of labor being higher everything upon which such labor is expended must become higher, or must degenerate in quality. As an immediate result of this, investors who formerly placed their money in real estate now



turn it to other channels which are more profitable. The most pronounced effect of reduced hours of labor is a strengthening of the labor union, and incidental to this a most radical change in the aspirations of the working-man. His highest aspiration, formerly, was some day to become an employer himself. To-day the employer is his enemy; he works not so much for his employer's interest and his own as for the pay he will receive, and his ambition is to become, not an employer of his fellowmen, but rather their leader in a fight between them and those who furnish them with employment. Physical and moral effect depends solely upon the habits of the individual.

## MUNICIPAL LABORERS.

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Statistics regarding the hours of labor of municipal laborers, and the wages paid them, were sought from Connecticut towns having a population of 5,000 or over. Conditions prevailing in Torrington and Winchester in Litchfield county, and in Thompson in Windham county, make the returns from those towns valueless, and figures are therefore presented from twenty-seven towns. In twenty-one of these towns the daily hours of labor are ten. Nine hours daily are conceded in the towns of Hartford, New Britain, New Haven, Meriden and Bridgeport, while Norwalk stands alone with eight hours.

The hours in New Britain are nine, by vote of the city council, which vote also fixed the minimum day wage at \$1.75.

There are a few other instances of the payment of \$1.75 per day, but the average daily wage in the majority of the twenty-seven towns is \$1.50. In Groton that limit was fixed by a vote in town meeting. The wage average remains at about the same figure reported for the State in the report of this Bureau for 1890.

## MUNICIPAL LABORERS.

	HOURS OF LABOR PER DAY.	WAGES PER DAY.		HOURS OF LABOR PER DAY.	WAGES PER DAY.
HARTFORD COUNTY.			FAIRFIELD COUNTY.		
Hartford, . . .	9	\$ 1.50-1.80	Bridgeport, . . .	9	\$ 1.50
Bristol, . . .	10	1.75	Danbury, . . .	10	1.50
Enfield, . . .	10	1.50	Greenwich, . . .	10	1.75
Manchester, . .	10	1.50	Norwalk, . . .	8	1.50
New Britain,* .	9	1.50-1.75	Stamford, . . .	10	1.50
Southington, .	10	1.50	NEW LONDON COUNTY.		
NEW HAVEN COUNTY.			New London, . .	10	1.50-1.75
New Haven, . .	9	1.50	Groton, . . .	10	1.50
Ansonia, . . .	10	1.50-1.75	Norwich, . . .	10	1.50
Derby, . . .	10	1.50	Stonington, . .	10	1.50
Meriden, . . .	9	1.75	WINDHAM COUNTY.		
Nauga'uck, . .	10	1.50-1.75	Windham, . . .	10	1.50-1.75
Wallingford, .	10	1.50-1.75	Killingly, . . .	10	1.35
Waterbury, . .	10	1.50-1.75	Putnam, . . .	10	1.35-1.50
MIDDLESEX COUNTY.			TOLLAND COUNTY.		
Middletown, .	10	1.65-2.00	Vernon, . . .	10	1.50

\* The town pays the smaller amount and the city the larger.

## STREET RAILROAD EMPLOYES.

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In the street car service extended daily hours of toil are the rule. An effort to reduce the hours of labor by law, and to fix the maximum, failed in the General Assembly of 1893. As is seen in the accompanying tables, the daily hours of labor on street railroads in Connecticut are in rare cases ten, more generally twelve and sometimes rising to fourteen. A comparison of these tables with those on the like subject presented in the report of this Bureau for 1890, shows that there has been a reduction in the hours of labor, generally confined, however, to places where electricity has superseded horses as a motive power. The ten-hour day is found on the electric lines, and the fourteen-hour day on the horse railroads. Sunday hours of labor, on the other hand, have increased during the period between 1890 and 1892, due to the increased car service provided on that day in the more populous communities.

As compared with the figures in the 1890 report there has been no material change in wages paid per day, though the reduction in the hours of labor has effected an increase in the amount paid per hour. Now, as was the case in 1890, the highest wages for stablemen are paid in New Haven and Norwalk.

In Hartford conductors and drivers work on special occasions more hours than the number specified in the table. They receive no extra compensation for this over-time, but, in return therefor, are frequently allowed a trip or two off with no deduction in pay. In Meriden and in Norwich overtime is paid for at a fixed price per hour. In Middletown the conductors and drivers alternate on the long and short runs, working thirteen hours on some days, less on others, and still less on Sundays, also having every third night and every third Sunday off. Their weekly average under this arrangement is seventy-seven hours.

## STREET RAILROAD CONDUCTORS AND DRIVERS, OR MOTOR-MEN.

TOWNS.	DAILY HOURS OF LABOR.		RATE OF WAGES.	
	On 6 Days.	On Sunday.	Per Hour.	Per Day.
Hartford, . . . . .	11	11	.17½-.20	fr . . . . .
New Britain, . . . . .	10	10	. . . . .	2.00
Southington, . . . . .	12	12	.20	2.40
New Haven, . . . . .	10-14*	10-14	.20	2.00-2.80
Derby, . . . . .	11†	11	. . . . .	2.30
Meriden, . . . . .	14½	14½	.16½	2.40
Waterbury, . . . . .	13½	13½	. . . . .	2.00
Bridgeport, . . . . .	12	12	. . . . .	2.00
Danbury, . . . . .	12	12	. . . . .	2.00
Norwalk, . . . . .	12	12‡	. . . . .	2.00
Stamford, . . . . .	12	12	. . . . .	1.75
New London, . . . . .	11	11	.17½	. . . . .
Norwich, . . . . .	10	10	.17½	1.75
Middletown, . . . . .	11	11	. . . . .	1.75

\* Horse railroad employes work the longer hours.

† Work four days out of each five, and are paid \$55.00 a month, with 15 cents for each hour over 11.

‡ Every fourth Sunday.



## STABLE-MEN AND OTHER STREET RAILROAD EMPLOYES.

TOWNS.	DAILY HOURS OF LABOR.		RATE OF WAGES.	
	On 6 Days.	On Sunday.	Per Hour.	Per Day.
Hartford, . . . .	10	10	.12½-.15	\$ 1.25-1.50
New Britain, . . .	10	10	.15	1.50
Southington, . . .	12	2	.....	.....
New Haven, . . . .	10-14*	10-14	.15-.17½	1.50-2.10
Derby, . . . . .	10	10	.....	1.50
Meriden, . . . . .	11†	10	.....	1.43
Waterbury, . . . .	14‡	14	.....	1.75
Bridgeport, . . . .	14	14	.....	1.50
Danbury, . . . . .	13	13	.....	1.75
Norwalk, . . . . .	12½	12½§	.....	2.00
Stamford, . . . . .	12	12	.....	1.50
New London, . . . .	10	10	.15	1.50
Norwich, . . . . .	10	10	.15	1.50
Middletown, . . . .	9½	9½	.....	1.50

\* Stable-men on horse railroads work the longer hours.

† One night in each week each stable-man works four hours extra, making a total for the week of 80 hours.

‡ One-half of the stable-men work 12 hours one day and 16 the next.

§ Every other Sunday.



## BAKERS.

Returns concerning bakers were also limited to towns of 5,000 or more population. This is another industry in which the daily hours of labor are generally many. Two towns, however, report nine hours as the fixed daily limit, and three others nine hours on occasional days in the work-room of some bakeries. In one town fewer hours on one day in the week are permitted, and the number of towns which report ten hours as a day's labor is encouraging. Weekly wages, when compared with those presented in the report of this Bureau for 1888, show no material change. The hours of labor and the average weekly wages have been thus tabulated :

	Daily Hours of Labor.	WEEKLY WAGES.		
		First Hands.	Second Hands.	Third Hands.
HARTFORD COUNTY.				
Hartford, . . . . .	10	\$16.00	\$12.00	\$11.00
Bristol, . . . . .	9	16.00	12.00	10.00
Enfield, . . . . .	10	14.00	11.00	10.00
Manchester, . . . . .	11	14.50	11.00	9.00
New Britain, . . . . .	11	15.00	12.00	11.00
NEW HAVEN COUNTY.				
New Haven, . . . . .	10	\$17.00	\$12.00	\$10.00
Ansonia, . . . . .	10	17.00	11.00	....
Derby, . . . . .	11-14	16.00	....	5.00
Meriden, . . . . .	9-14	16.50	10.50	....
Naugatuck, . . . . .	10-11*	15.00	12.00	....
Wallingford, . . . . .	12-15	16.00	10.00	....
Waterbury, . . . . .	9-12	16.00	12.00	6.00

\*On Saturday, seven to eight hours.

## BAKERS.—CONCLUDED.

	Daily Hours of Labor.	WEEKLY WAGES.		
		First Hands.	Second Hands.	Third Hands.
FAIRFIELD COUNTY.				
Bridgeport, . . . . .	12	15.00	12.00	9.00
Danbury, . . . . .	9	17.00	12.00	9.00
Greenwich, . . . . .	13	17.00	13.00	11.00
Norwalk, . . . . .	10	18.00	12.00	9.00
Stamford, . . . . .	14	20.00	13.00	11.00
NEW LONDON COUNTY.				
New London, . . . . .	11	20.00	15.00	12.00
Groton, . . . . .	11	15.50	12.50	....
Norwich, . . . . .	10-12	18.00	12.00	....
Stonington, . . . . .	9-11	16.00	13.00	7.50
WINDHAM COUNTY				
Windham, . . . . .	Irregular.	17.50	....	....
Killingly, . . . . .	Irregular.	16.50	....	....
Putnam, . . . . .	12	15.00	....	....
LITCHFIELD COUNTY				
Torrington, . . . . .	12	18.00	15.00	....
Winchester, . . . . .	10-12	15.00	12.00	....
MIDDLESEX COUNTY.				
Middletown, . . . . .	10	18.00	12.00	9.00
TOLLAND COUNTY.				
Vernon, . . . . .	Irregular.	16.50	....	....

## THE EIGHT-HOUR DAY IN CIGAR-MAKING.

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The cigar-making industry—the only trade which has obtained an eight-hour working day—might be expected to furnish a good object lesson of the effect of shorter working hours on output and wages, and on the industry and the workers therein generally.

It is an industry, in the first place, not affected to any material extent by the introduction of machinery. In the second place, government supervision of the industry, through the Internal Revenue Department, makes possible a close approximation to accuracy in the output of cigars at different periods. If to this comparison of product within a bounded territory could be added the number employed at different periods, one period just prior to, and the other just subsequent to the adoption of the eight-hour day, the variation in production per employe might be ascertained with a reasonable degree of accuracy. The number employed at the present time may be readily learned, but the number employed at a past period, during 1885 for instance, just before the establishment of the eight-hour day, cannot be ascertained with a sufficient degree of accuracy to make it valuable. The irregularity of working by the cigar-makers also adds a factor concerning which it is almost impossible even to make estimates.

The best figures that could be obtained on the subject are the Internal Revenue figures as to the number of cigar factories and the output in the State, supplemented by returns as to the number of employes and average earnings in 1885 and 1892, from the larger cigar manufacturing firms in the State which were in business at those periods. The irregularity of working must be considered also in connection with the statement of earnings. It was only possible, at the best, to obtain the average of the earnings. Averages, in any circumstances, are not very valuable as statistics. In the cigar-making industry, where all the work is by the piece, the average must be of relatively large and small earnings, due to the closer application or the superior ability of some of the workers.

It should be said here that the irregularity of working is much more a feature of other days than of the present in the cigar-making



industry. A positive development of the inquiry was the almost unanimous agreement of cigar manufacturers and of cigar-makers that the adoption of the eight-hour day has resulted in steadier work at the benches and in fewer days of idleness. The time during working hours that was formerly devoted to gossip and discussion is now employed in cigar-making, the discussion being deferred to the leisure time following the expiration of the working day. One large manufacturer writes that the men "do not lose any time in visiting or loafing, as under the ten-hour system," and that, in addition, the change to eight hours "has had a tendency to elevate the character of the men and their habits." Another writes that the shorter working day "gives the men a chance for mental and moral improvement, besides increasing their earnings."

Only two manufacturers of the almost 200 visited complain that the cigar-makers lose as much time under the eight-hour system as under ten hours. The large majority assert that the men work much more earnestly than formerly, and that they make about as many cigars in eight hours as they did in ten. A few manufacturers only said that it was necessary to slightly increase the working force, in order to produce as many cigars in eight hours as had been made before in ten hours. On the other hand, many of the cigar-makers complain that the expectation that a shorter working day would result in a better distribution of the opportunity for labor, and would, by limiting the efforts of the workers, give employment to surplus labor, had not been realized. The weight of opinion was decidedly in favor of the position that the decrease in working hours had not been accompanied by a corresponding decrease in product per employe.

This position is supported by such statistics as are available. In the year ended December 31, 1885, a year just prior to the adoption of the eight-hour day, the 314 cigar factories in Connecticut produced 30,665,190 cigars. For the year ended December 31, 1892, there were 340 factories producing 35,967,189 cigars. As said before, only a very few of the manufacturers reported the necessity of an increased force to maintain, during eight hours, the average output of the preceding ten-hour period. The increase in working force was mainly due to the enlarged market for the product. Just what the increase was cannot be learned.

The increase of 36 in the number of factories does not imply a large increase in the number of cigar-makers. The tendency in the trade is to the establishment of small factories, and this movement

has been aided by the abolition of the license tax on factories and of the special tax on sales. Omitting two factories, each employing 40 people, the average number of cigar-makers employed in each of the factories existing in 1892 and not in 1885 was two. Allowing this average of two to each of 34 new factories, adding 80 for two other new factories, and 25, which is the net increase in the number reported employed in 1892 over the number employed in 1885, in factories existing at both periods, and the resultant total of 173 represents a working force not much larger than that required to produce the increase in yearly output of 5,300,000 cigars.

The statements of weekly earnings at the two periods are of interest, though not of value as bearing upon the question of individual product under the different conditions of the hours of labor. Statistics as to earnings were obtained from both cigar manufacturers and cigar-makers, and the figures here presented are the result of a study and a comparison of both series of returns. Variations in earnings are due partly to differences in ability and application, and partly to differences in grade of the work furnished. The figures are presented by towns, and are the averages of the wages earned in each town, the returns from the small towns being bunched in order to avoid disclosure of identity:

## AVERAGE WEEKLY EARNINGS.

TOWNS.	1885.	1893.	TOWNS.	1885.	1893.
Ansonia, . . . .	\$ 13.25	\$ 14.75	New London, . . .	\$ 11.75	\$ 13.00
Bridgeport, . . .	14.00	14.75	Norwalk, . . . .	12.75	12.50*
Danbury, . . . .	12.00	12.50	Norwich, . . . .	11.50	11.50
East Hartford, . .	.....	12.00	Suffield, . . . .	13.75	16.00
East Windsor, . .	12.00	12.75	Torrington, . . .	.....	15.00
Enfield, . . . .	13.00	13.50	Trumbull, . . . .	13.50	12.75
Glastonbury, . . .	9.00	10.50	Vernon, . . . .	8.50	.....
Hartford, . . . .	11.80	13.00	Waterbury, . . . .	12.00	14.00
Meriden, . . . .	13.00	12.50	Winchester, . . .	12.00	14.00
Middletown, . . .	9.00	11.00	Windsor, . . . .	12.00	13.25
New Britain, . . .	11.50	13.50	Windsor Locks, . .	12.50	15.00
New Haven, . . .	14.00	14.50	19 Small Towns, .	13.00	13.30

\*The average in Union shops is reported as \$13.75.

With a few exceptions the table shows an increase in average weekly earnings. This is due, in a large measure, to the increased rate per thousand cigars obtained in Union cigar manufactories since the adoption of the eight-hour day. Some manufacturers ascribe the increase entirely to this cause.

On the general subject of the effect of the change to eight hours, varying opinions have been obtained from employers and employes, though the large majority agree in pronouncing the effect good. A few declare for even shorter working hours, and per contra, two workmen were found in one of the cities who favored ten hours. A manufacturer in one of the large cities said that the eight-hour day was not beneficial, "as the tension during eight hours reduces physical powers." Another city manufacturer, conducting a non-union shop, says that his employes need to work eleven hours a day in order to earn a living. A few manufacturers prefer ten hours a day, and a larger number declared in favor of nine hours. A sentiment was also found in some quarters in opposition to what is called a violation of the right of contract, and in favor of permitting men to work as many hours as they desire, or as many as it is necessary in order to earn a competence.

The members of one of the largest Cigar-makers' Unions in the state were at first opposed to the time restriction on piece-work, but are now reconciled to it, particularly as with the advance of a dollar per thousand cigars, they are earning, on the average, more than before. This applies mainly to the rapid workers. A frequent answer to the inquiries of the agents of the Bureau was that the change to eight hours was detrimental to the slow worker, in a material reduction of his earnings. As a remedy for this, it was suggested by a few that the limit of a day's work be not hours, but a fixed number of cigars.

PART II.

CHILD LABOR.





## CHILD LABOR.

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The Connecticut statute, forbidding the employment in manufacturing or mercantile establishments of children under fourteen years of age, who have not attended school at least sixty full school days, of the preceding twelve months, was adopted in 1882. This was followed in 1886 by a statute forbidding the employment in manufacturing or mercantile establishments of any child under thirteen years of age; and in 1887 by a statute limiting the hours of labor for minors under sixteen years of age, and for women, to ten daily or sixty per week.

A comparison of the census figures of 1890 with those of 1880 might be expected, therefore, to show something of the effect of this Connecticut legislation on the employment of women and children. The completed census figures for 1890 were not available when this report was prepared, but bulletins had been issued giving the results of the census inquiry into the textile industries—cotton, wool, silk, shoddy, and the dyeing and finishing of textiles. As the employment of women and children reaches its largest proportion in the textile industries, a comparison of the Connecticut figures for 1880 and 1890 in these industries has been made. The comparison was extended to the other New England States and to the country at large, in order to show relative increase or decrease in the number of women and children employed under varying restrictive laws.

The census returns of 1880 regarding the employment of women and children have been questioned, some critics regarding the cen-

sus figures as too high, and some as too low. Because of the added restrictions during the decade regarding the employment of children, there may have been more temptation to answer falsely in 1890 than there was in 1880, but such falsification would reduce the given figures below the actual number, while the criticism of the 1880 figures for Connecticut was that they exaggerated the number of children employed. If the latter criticism is well founded, it furnishes a partial explanation of the very large absolute decrease, between 1880 and 1890, in the number of children employed in textile industries in Connecticut.

There is no positive reason for discrediting the census figures in respect to the number of women and children employed. The criticism rests mainly on the natural supposition that, with the growth of public sentiment against the employment of children, unscrupulous employers might understate the number actually employed. The census figures, however, are the only available ones covering the whole field, and the only statistics with the color of authority that can be had in Connecticut under the present law.

"Children," in the census returns, includes boys under sixteen years of age and girls under fifteen years. It is impossible, therefore, to determine what proportion of those reported as employed are illegally employed; whether, in fact, any of them are under the legal age of employment in Connecticut. According to the school enumeration returns of October, 1889, the number of children between the ages of eight and fourteen who attended no school was 2,338. It is inferred that a large majority of this number were at work, yet in that year the agent of the State Board of Education (which is charged with the enforcement of the child labor law), in his investigation of 1,976 cases of absence from the public schools, found 937 absent under legal excuse, 533 absent illegally but not at work, and only sixty-five at work illegally. The agent's inquiry extended into fifty-two towns in the State, and of the number found to be at work illegally thirty-two were in Hartford county, the highest number in any other county being seven.

#### THE TEXTILE INDUSTRIES.

The census returns indicate an absolute and very gratifying decrease during the decade in the number of children employed in the textile industries in Connecticut, from 5,035 in 1880 to 1,761 in 1890.

THE TEXTILE INDUSTRIES.—NUMBER OF OPERATIVES  
EMPLOYED.

STATES.	MALES OVER 16.		FEMALES OVER 15.		CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . .	158,002	225,032	170,283	244,925	55,133	42,786
Massachusetts, . . .	45,194	60,507	49,921	59,771	11,501	3,225
Connecticut, . . .	13,601	15,470	11,741	14,657	5,035	1,761

There was an absolute decrease also of children employed in Massachusetts, the only one of the New England States furnishing data in all the textile industries for comparison with that in Connecticut, and a decrease also in the United States. But the per cent. of decrease was the highest in Connecticut. The per cent. of increase of females employed was higher in Connecticut than in Massachusetts, though lower than in the country at large; while the per cent. increase in males employed was much lower in Connecticut than in Massachusetts or in the United States.

THE TEXTILE INDUSTRIES.—PER CENT. INCREASE OR DE-  
CREASE OF EMPLOYES, 1880 TO 1890.

STATES.	Per cent. Increase Males.	Per cent. Increase Females.	Per cent. Decrease Children.
The United States, . . . . .	42.42	43.83	22.39
Massachusetts, . . . . .	33.88	19.73	45.87
Connecticut, . . . . .	13.74	24.84	65.02

The proportion of children employed to the total number employed in 1880 was one in six in Connecticut, as compared to one in nine in Massachusetts and one in seven in the United States. In 1890 it was one in eighteen in Connecticut, one in twenty in Massachusetts, and one in twelve in the United States. An estimate in the 1886 report of this Bureau made the proportion in Connecticut in 1885 one in eleven. The per cent. females of the total increased in more rapid ratio in Connecticut during the decade than in Massachusetts or in the United States, the displaced children apparently being succeeded by women in Connecticut and by men in Massachusetts. But the proportion of males to the total was the highest in Connecticut in 1880, and remained the highest in 1890; while

the per cent. of females to the total in Connecticut in 1890 was under the average, despite the exceptional increase in that class of labor in the State during the decade.

THE TEXTILE INDUSTRIES.—PER CENT. MALES, FEMALES, AND CHILDREN OF THE TOTAL EMPLOYES.

STATES.	PER CENT. MALES.		PER CENT. FEMALES.		PER CENT. CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . .	41.21	43.89	44.41	47.77	14.38	8.34
Massachusetts, . . .	42.39	47.83	46.82	47.25	10.79	4.92
Connecticut, . . .	44.77	48.51	38.65	45.97	16.58	5.52

The per cent of children employed to the total employed in the textile industries in Connecticut in 1890 was less than the per cent. (7.48) of children to the total employed in all industries in the State in 1880. In the latter year one in every thirteen employed was a child. As children are found in the largest proportion in the textile industries, the decrease indicated during the decade is very striking.

CHILD LABOR AND LEGISLATION.

The much smaller per cent. of children employed in Connecticut and in Massachusetts than in the country at large may be due to the more stringent legislation in reference to child labor in Connecticut and in Massachusetts, and to the fact that in those two States the compulsory education laws are more strictly enforced than elsewhere. Massachusetts, which is credited with a smaller per cent. of children employed in textiles than Connecticut, has the same age employment limit as Connecticut, thirteen years, but, in addition, prohibits the employment, except during vacation, of children under fourteen years of age, unless they can read and write and have attended school in the preceding year twenty weeks (eight weeks more than the requirement in Connecticut), or unless they are regular attendants at a public evening school.

THE COTTON INDUSTRY.

Regarding the cotton industry, in which, among the textiles, the proportion of children employed is the largest, the Bulletin of the Census Bureau says that "the excess of increase in the number of operatives between 1880 and 1890 was, in a large measure, in the

class earning the highest rate of wages, namely, the men, while the number of children employed, has happily decreased." There was an absolute decrease during the decade in the number of children employed in each of the New England States, which is the chief seat of this industry, and also in the country at large.

## COTTON.—NUMBER OF OPERATIVES EMPLOYED.

STATES.	MALES.		FEMALES.		CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . . .	59,685	88,837	84,539	106,607	28,320	23,432
New England, . . . .	45,521	63,749	62,554	73,445	17,704	10,165
Maine, . . . .	3,858	5,193	6,481	7,856	1,420	863
New Hampshire, . . . .	5,104	8,144	9,594	10,345	1,697	894
Vermont, . . . .	200	325	350	309	171	90
Massachusetts, . . . .	22,180	33,101	31,496	38,352	7,570	4,091
Rhode Island, . . . .	8,045	10,507	9,199	10,887	3,930	3,182
Connecticut, . . . .	6,134	6,479	5,434	5,696	2,916	1,045

The decrease in the number of children employed is most marked in Connecticut, the per cent. of decrease in this State being approached only by the per cent. in Vermont, where only a comparatively few people are employed in the industry. The increase in the number of men and women employed in Connecticut was very small as compared with the other States. Each of the New England States exceeds the average for the country in the per cent. decrease of children employed, while each of those States also shows a smaller per cent. of increase of females employed than the average for the United States. In Vermont there was even an absolute decrease in the number of women employed.



COTTON.—PER CENT. INCREASE OR DECREASE OF EMPLOYES,  
1880 TO 1890.

STATES.	Per cent. Increase Males.	Per cent. Increase Females.	Per cent. Decrease Children.
The United States, . . . . .	48.84	26.10	17.26
New England, . . . . .	40.04	17.41	42.58
Maine, . . . . .	34.60	21.22	39.23
New Hampshire, . . . . .	59.56	7.83	47.32
Vermont, . . . . .	62.50	11.71*	50.29
Massachusetts, . . . . .	49.24	21.77	45.96
Rhode Island, . . . . .	30.60	18.35	19.03
Connecticut, . . . . .	5.62	4.82	64.16

In Connecticut, in 1880, the proportion of children employed to the total employed, in the cotton industry, was larger than the average for the country, and much larger than the average for New England, being exceeded in New England only by Vermont. The proportion was one in five in Connecticut, and the same in Rhode Island, as compared with one in nine in New Hampshire, one in eight in Massachusetts and Maine, one in four in Vermont, one in seven in New England, and one in six in the United States. Ten years later the proportion had decreased to one in nine in the United States, and one in fourteen in New England; Connecticut being a little below the New England average with one in thirteen, better than Vermont and Rhode Island, where the proportion was one in eight, but inferior to New Hampshire's one in twenty-two, Massachusetts' one in eighteen, or Maine's one in sixteen. In 1885, according to the estimates of this Bureau, the proportion in Connecticut was one in eight.

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\* Decrease.

## COTTON.—PER CENT. MALES, FEMALES, AND CHILDREN, OF THE TOTAL EMPLOYES.

STATES.	PER CENT. MALES.		PER CENT. FEMALES.		PER CENT. CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . .	34.59	40.59	49.00	48.71	16.41	10.70
New England, . . . .	36.19	43.26	49.73	49.84	14.08	6.90
Maine, . . . . .	32.81	37.33	55.11	56.47	12.08	6.20
New Hampshire, . . .	31.13	42.02	58.52	53.37	10.35	4.61
Vermont, . . . . .	27.74	44.89	48.54	42.68	23.72	12.43
Massachusetts, . . . .	36.21	43.82	51.43	50.77	12.36	5.41
Rhode Island, . . . .	38.00	42.75	43.44	44.30	18.56	12.95
Connecticut, . . . . .	42.35	49.01	37.52	43.09	20.13	7.90

The increase in the proportion of males to the total in Connecticut, was a little larger than the increase in the proportion of females. Males gained in much larger ratio, as compared with females, in the other New England States, and in the United States. Despite that gain, however, the proportion of males in Connecticut was largely above the average in 1890, as it had been in 1880, while the proportion of females in Connecticut was largely below the average in both the census periods. Vermont alone, of the New England States, and in which State the cotton industry is comparatively insignificant, is credited in 1890 with a per cent. lower than that of Connecticut. The per cent. of females to the total remained about stationary in New England, decreasing in New Hampshire, Vermont and Massachusetts, and in the United States.

## CHILD LABOR LAWS IN NEW ENGLAND.

The features of the child labor laws in Connecticut and Massachusetts have been presented. It is instructive to compare the child labor laws of the other New England States with the per cent. of children employed in the cotton industry in those states. In Maine the age limit of employment is twelve, but the employment, except during school vacation, of children under fifteen years of age is forbidden, unless they have attended school sixteen weeks (eight weeks continuous) during the preceding year. New Hampshire forbids the employment, except during school vacation, of any child under sixteen who cannot write legibly and read fluently, or

who has not attended school twelve weeks in the preceding year; of any child under fourteen who has not, in the preceding year, attended school six months, or during the time in which the district school was open; or of any child under twelve, except during school vacation. The age limit in Vermont is ten, but no child under fourteen may be employed (except during school vacation) who cannot read and write, or who has not attended school twenty weeks of the preceding year. Rhode Island permits the employment, during school vacation, of children under ten, and at other times of children under fifteen, who have attended school twelve weeks (six continuous) of the preceding year, or who can procure a certificate that they have acquired the elementary branches taught in the public schools.

#### WITH GOOD LAWS FEW CHILDREN EMPLOYED.

Massachusetts has a more effective law than that of Connecticut, and the per cent. of children employed in the cotton industry is less in Massachusetts than it is in Connecticut. Maine and New Hampshire have even better laws, and the per cent. of children employed in cotton mills in those states is correspondingly low. The best law and the lowest per cent. are coincident in New Hampshire. Rhode Island, where the law is weaker than in any other of the New England States, is credited with the largest proportion of children in cotton mills; larger even than the average for the United States. Such facts carry their own conclusion.

#### THE WOOL INDUSTRY.

In the wool industry there was an absolute decrease, between 1880 and 1890, in the number of children employed in the United States, and in each of the New England States, except in Rhode Island, where the number was the same at each period.

## WOOL.—NUMBER OF OPERATIVES EMPLOYED.

STATES.	MALES.		FEMALES.		CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . . .	75,459	99,318	66,814	106,112	19,284	15,657
New England, . . . .	37,069	47,430	30,681	40,389	7,650	4,793
Maine, . . . .	1,811	3,291	1,160	2,012	294	150
New Hampshire, . . . .	3,351	4,341	3,382	4,805	619	300
Vermont, . . . .	1,309	1,222	1,010	1,039	148	42
Massachusetts, . . . .	18,374	22,358	16,473	18,838	3,281	1,842
Rhode Island, . . . .	5,877	9,311	4,411	8,138	1,876	1,876
Connecticut, . . . .	6,347	6,907	4,245	5,557	1,432	583

The largest per cent. of decrease in the number of children employed was in Connecticut (except in Vermont, where there was a decrease in the total number of employes). The per cent. of decrease in each of the New England States (omitting Rhode Island) was much larger than in the country at large. The per cent. of increase in the number of women employed in Connecticut was about the New England average, though much less than the per cent. of increase in Maine, New Hampshire, Rhode Island, and the United States; while the per cent. of increase of men employed in Connecticut was very much under the average. This is explained, in part, by the fact that the proportion of males to the total in Connecticut was above the average in 1880 and in 1890, while the proportion of females to the total in the State was below the average at both periods.

WOOL.—PER CENT. INCREASE OR DECREASE OF EMPLOYES.  
1880 TO 1890.

STATES.	Per cent. Increase Males.	Per cent. Increase Females.	Per cent. Decrease Children.
The United States, . . . . .	31.62	58.82	18.81
New England, . . . . .	27.95	31.64	37.35
Maine, . . . . .	81.72	73.45	49.00
New Hampshire, . . . . .	29.51	42.08	51.53
Vermont, . . . . .	6.65*	2.87	71.62
Massachusetts, . . . . .	21.68	14.36	43.86
Rhode Island, . . . . .	58.43	84.49	.....
Connecticut, . . . . .	8.82	30.91	59.29

The per cent. of children employed to the total employed in Connecticut in 1880 was above the New England average, and just about equal to the per cent. for the United States. The proportion in Connecticut and in the United States in 1880 was one in eight, it being one in six in Rhode Island, one in eleven in Maine, one in twelve in New Hampshire and Massachusetts, one in seventeen in Vermont, and one in ten in New England. At the end of the decade it was one in twenty-two in Connecticut, one in ten in Rhode Island, one in twenty-three in Massachusetts, one in thirty-two in New Hampshire, one in thirty-six in Maine, one in fifty-five in Vermont, one in nineteen in New England, and one in fourteen in the United States. In 1890 the per cent. of children to the total in Connecticut was below the average for the United States and for New England, but higher than the percentage in the other New England States, except in Rhode Island, where the high percentage unduly lifts the average for New England. The children withdrawn from the industry, were apparently largely replaced by women in Connecticut, in Rhode Island, in Vermont and in New Hampshire and by men in Maine and in Massachusetts.

\*Decrease.



WOOL.—PER CENT. MALES, FEMALES, AND CHILDREN, OF  
THE TOTAL EMPLOYEES.

STATES.	PER CENT. MALES.		PER CENT. FEMALES.		PER CENT. CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . . .	46.71	44.92	41.35	48 00	11.94	7.08
New England, . . . .	49.16	51.21	40.69	43.61	10.15	5.18
Maine, . . . .	55.47	60.35	35.53	36.90	9.00	2.75
New Hampshire, . . . .	45.58	45.96	46.00	50.87	8.42	3.17
Vermont, . . . .	53.06	53.06	40.94	45.12	6.00	1.82
Massachusetts, . . . .	48.19	51.95	43.20	43.77	8.61	4.28
Rhode Island, . . . .	48.32	48.18	36.26	42.11	15.42	9.71
Connecticut, . . . .	52.79	52.94	35.30	42.59	11.91	4.47

In the wool, as in the cotton industry, the largest per cent. of children employed is found in the States having the minimum of restrictive legislation regarding the employment of children. Rhode Island leads, followed in the order named, by Connecticut, Massachusetts, New Hampshire, Maine and Vermont.

THE SHODDY INDUSTRY.

Maine and Vermont are omitted from the comparison in the shoddy industry, as the details in the small number of establishments in those States could not be printed without disclosing identity. This industry has assumed comparatively small proportions in Connecticut, and the facts concerning it have therefore little economic value. In this, as in the other textile industries, there was during the decade an absolute decrease in the number of children employed, in the country at large, and in each of the New England States tabulated, except Connecticut, where the number remained stationary, but where the number reported was only eight at the beginning and end of the decade. In New Hampshire, Massachusetts and Rhode Island no children were reported as employed in 1890. There was a decrease also in the number of women employed in the New England States.

## SHODDY.—NUMBER OF OPERATIVES EMPLOYED.

STATES.	MALES.		FEMALES.		CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . .	695	1,369	496	859	91	38
New Hampshire, . . .	13	25	8	....	2	....
Massachusetts, . . .	334	329	105	106	32	....
Rhode Island, . . .	51	143	26	3	6	....
Connecticut, . . .	93	154	38	18	8	8

The per cent. of children employed to the total employed was lowest in Connecticut in 1880, but highest in 1890. The per cent. of women to the total decreased, except in Massachusetts.

## SHODDY.—PER CENT. MALES, FEMALES, AND CHILDREN, OF THE TOTAL EMPLOYES.

STATES.	PER CENT. MALES.		PER CENT. FEMALES.		PER CENT. CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . .	54.21	60.41	38.69	37.91	7.10	1.68
New Hampshire, . . .	56.52	100.00	34.78	.....	8.70	....
Massachusetts, . . .	70.91	75.63	22.29	24.37	6.80	....
Rhode Island, . . .	61.45	97.95	31.23	2.05	7.23	....
Connecticut, . . .	66.91	85.56	27.34	10.00	5.75	4.44

## THE SILK INDUSTRY.

As there was only one silk establishment in Maine in 1890, and none reported in New Hampshire, Vermont, and Rhode Island, the comparisons in that industry are limited to Connecticut, Massachusetts and the United States. Here again there was an absolute decrease in the number of children employed, most marked in Connecticut. The Census bulletin, detailing these facts, says that the very noticeable decrease in the number of children employed is "largely due to the stringent laws which have been enacted during the decade, in several States, regulating the employment of children in factories."

## SILK.—NUMBER OF OPERATIVES EMPLOYED.

STATES.	MALES.		FEMALES.		CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . .	9,375	18,998	16,396	29,049	5,566	2,866
Massachusetts, . . .	353	1,192	1,285	1,936	188	88
Connecticut, . . .	785	1,540	1,990	3,301	653	123

The per cent. of reduction of children employed was the highest in Connecticut, being almost double that reported for the United States. The per cent. of increase in the number of women employed was larger in Connecticut than in Massachusetts, but lower than in the United States, while the per cent. of increase in the number of men employed was very much less in Connecticut than in Massachusetts, though nearly equal to the per cent. of increase for the country.

SILK.—PER CENT. OF INCREASE OR DECREASE OF EMPLOYEES,  
1880 TO 1890.

STATES.	Per cent. Increase Males.	Per cent. Increase Females.	Per cent. Decrease Children.
The United States, . . . . .	102.65	77.17	48.51
Massachusetts, . . . . .	237.68	50.66	53.19
Connecticut, . . . . .	96.18	65.88	81.16

The proportion of children employed to the total employed was highest in Connecticut in 1880, being one in five, as compared with one in ten in Massachusetts, and one in six in the United States. Connecticut had taken the first place in 1890, the proportion in the State in that year being one in forty, while in Massachusetts it was one in thirty-six, and in the United States one in eighteen. In Connecticut the places of the children withdrawn from employment were apparently about evenly distributed between the men and women. In Massachusetts the per cent. of females employed to the total employed decreased, the per cent. of males employed being correspondingly increased.

SILK—PER CENT. MALES, FEMALES, AND CHILDREN, OF  
THE TOTAL EMPLOYEES.

STATES.	PER CENT. MALES.		PER CENT. FEMALES.		PER CENT. CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . .	29.92	37.31	52.32	57.06	17.76	5.63
Massachusetts, . .	19.33	37.06	70.37	60.20	10.30	2.74
Connecticut, . . .	22.90	31.02	58.05	66.50	19.05	2.48

DYEING AND FINISHING TEXTILES.

The special industry of dyeing and finishing textiles is of comparatively small importance in New England, and particularly in Connecticut, where the total number reported as employed in 1890 was less than 500. But as the figures of the industry are included in the totals of the textile industries, they are here presented. Maine, New Hampshire and Vermont have to be omitted from the comparison. A like absolute decrease in the number of children employed, as in the other textile industries, is to be noted.

DYEING AND FINISHING TEXTILES.—NUMBER OF OPERATIVES  
EMPLOYED.

STATES.	MALES.		FEMALES.		CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . .	12,788	16,510	2,038	2,298	1,872	793
Massachusetts, . .	3,953	3,527	562	539	430	204
Rhode Island, . . .	2,146	2,904	430	570	400	145
Connecticut, . . .	242	390	34	85	26	2

The per cent. of decrease of children employed is largest in Connecticut, as is also the per cent. of increase in men and women employed.

**DYEING AND FINISHING TEXTILES.—PER CENT. INCREASE OR  
DECREASE OF EMPLOYES, 1880 TO 1890.**

STATES.	Per cent. Increase Males.	Per cent. Increase Females.	Per cent. Decrease Children.
The United States, . . . . .	29.11	12.76	57.64
Massachusetts, . . . . .	10.78*	4.09*	52.56
Rhode Island, . . . . .	35.32	32.56	63.75
Connecticut, . . . . .	61.16	150.00	92.31

The proportion of children employed to the total employed in 1880 was one in twelve in Connecticut and in Massachusetts, one in seven in Rhode Island, and one in nine in the United States. In 1890 it had risen to one in 238 in Connecticut, one in twenty-five in Rhode Island and in the United States, and one in twenty-one in Massachusetts. The per cent. of women to the total was lowest in Connecticut in 1880, but highest in 1890, women evidently replacing the children. In Massachusetts, and in Rhode Island, and in the United States (where the per cent. of women decreased), men evidently took the places of the children sent to school.

**DYEING OR FINISHING TEXTILES.—PER CENT. MALES, FE-  
MALES, AND CHILDREN, OF THE TOTAL EMPLOYES.**

STATES.	PER CENT. MALES.		PER CENT. FEMALES.		PER CENT. CHILDREN.	
	1880.	1890.	1880.	1890.	1880.	1890.
The United States, . . . . .	76.58	84.23	12.21	11.72	11.21	4.05
Massachusetts, . . . . .	79.94	82.60	11.36	12.62	9.70	4.78
Rhode Island, . . . . .	72.11	80.24	14.45	15.75	15.44	4.01
Connecticut, . . . . .	80.13	81.76	11.26	17.82	9.51	.42

**DESIRED ECONOMIC ADVANTAGES.**

The subject of child labor may be considered from three stand-points: economic, educational, and physical. The three, however, readily resolve themselves into one—economic—as it will not be disputed that any physical or intellectual gain on the part of the child will result in a better and more capable citizen, and in an

\*Decrease.



improved posterity, both physically and mentally, thereby effecting a great gain economically and benefitting the Commonwealth immeasurably.

The form of industrial growth, through the perfection of labor-saving devices, demands intelligent labor for the direction of these devices. The constant tendency of modern methods is towards a cheapening of production. Intelligent labor, though commanding relatively high daily wages, is cheap labor, while ignorant labor is wasteful and dear. Economic considerations, therefore, strongly demand increased intelligence on the part of the worker—not only increased intelligence in the conduct of a certain line of work, or in the manipulation of an intricate machine, but increased general intelligence, which facilitates the acquirement of special knowledge. The child is the parent of the man, and the foundation of the knowledge of the man must be laid in the child. To that end an added year in school would be of manifest advantage.

This is the argument from the material, the purely economic standpoint. Much more might be added on the score of intellectuality, of physical and moral betterment, and of a general advance in citizenship, but that has place here only collaterally, as an adjunct of the desired economic improvement.

#### PUBLIC SENTIMENT ON THE QUESTION.

Public sentiment, as gathered by the Bureau, strongly supports the arguments here outlined—only outlined, because it has been thought best to present the arguments in the language of the correspondents of the Bureau. These correspondents include manufacturers, workingmen, school superintendents and teachers, and physicians. From manufacturers and workingmen a treatment of the subject economically was anticipated; from school teachers a view of the intellectual advantages; and from physicians a discussion of the physical effect. Many of them unite all the arguments. To each was addressed a letter asking views on the proposition (offered to and rejected by the General Assembly of 1893) to raise from thirteen to fourteen years the limit under which children may not be employed in any mechanical, mercantile, or manufacturing establishment.

The large majority of those replying heartily favor the proposed increase of the age limit, and not a few favor raising it to even fifteen or sixteen years.

## THE ARGUMENTS AGAINST A CHANGE.

The principal arguments in opposition to a change in the law are that it would cause hardship to poor or invalid parents, and would foster idleness rather than education.

It may be said of the first of these arguments, as was said in the report of this Bureau for 1886, that "the general object to be attained is so good that we must be prepared to enforce the law, even though it may create great hardship in individual cases."

Some correspondents of the Bureau try to meet the objection based on hardship with the impracticable suggestion that, in the event of raising the age limit, power be delegated to some authority to suspend the operation of the law in cases where the proceeds of the child's labor are absolutely necessary.

## EDUCATION AND NOT IDLENESS.

The second argument in opposition, that a change in the law would foster idleness, is the stronger. This argument is based mainly on the provisions of the law regarding the maintenance of schools. The law (Section 2118 of the General Statutes) provides that "public schools shall be maintained for at least thirty-six weeks in each year, in every school district in which the number of persons between four and sixteen years of age at the last preceding enumeration was 100 or more, and for at least thirty weeks in every district in which the number of persons between said ages was twenty-four or more, and for at least twenty-four weeks in the other districts."

The manifest absurdity and injustice of a law which restricts the opportunity of education for children because their number is few, need not be further discussed here. It is properly and energetically discussed in the report for 1893 of the Secretary of the State Board of Education, which report is a complete answer to the argument that limiting the employment of children fosters vicious idleness rather than education. "Children are found in the streets wasting their time," writes the Secretary, "but this was true before this legislation, and is not the result of it. There is no evidence," he further says, "and it has been inquired for year after year, that any considerable number of children, because of this legislation, are forming habits of idleness." On the contrary, because of the enforcement of the law, "children between eight and thirteen years will not be found in any 'mechanical, mercantile, or manufacturing'

employments. The record of school attendance shows that nearly all are registered in public and private schools."

#### LONGER SCHOOL TERMS.

On the main question the Secretary of the State Board of Education says: "Schools should be open forty-five to fifty weeks in the year. If we will not let children work shall we not provide school? Is it not due, too, to the children, that all possible time in their early years shall be given to education? They have a claim upon the State, as well as upon their parents, for an education." The Secretary also states that "those who have a good school education are able to adapt themselves afterwards to such employments as they engage in better than those who have not had an education."

In referring to a minor argument against legislation limiting the employment of children the Secretary writes: "There are those who say that children between eight and thirteen years of age ought to be employed in order that they may be industrious in after-life. It is preposterous to assume that a child between the ages of eight and thirteen, kept at work ten hours a day at labor from which he receives no pecuniary benefit, is thereby induced to love labor. The childhood experience of every sane man is an answer to any such assumption."

This part of the subject may be left with the remark that the enforcement of the present law is an assurance of the ability to enforce a statute providing that the age limit be raised from thirteen to fourteen years.

#### VIEWS OF MANUFACTURERS.

Of the seventy-one manufacturers who replied to the Bureau's circular letter, thirty-nine desire an increase in the age limit; one believes that a change would be desirable but fears that it would cause hardship; one would raise the age limit for girls; another thinks that an increase would be proper if additional education could be secured; one has no objection to an increase in the age limit; and one is indifferent. Twenty-six of the seventy-one manufacturers declare their opposition to any change in the law, and one writes that there should be no age limit. One of the twenty-six favors a reduction of the age limit to twelve years.

The arguments offered by manufacturers in favor of a change are that it would be a benefit to the child, physically and intellect-

ually, and consequently a benefit to the State. The main reason in opposition is that a change would work hardship to poor or invalid parents. It is also advanced that children are not injured by work at the age of thirteen years ; that, on the contrary, industrial work is helpful to intellectual culture ; that in districts where the school term is not over twenty-five weeks annually, a restraint, for another year, of the privilege to work, would result in vicious idleness; and that all laws of the kind suggested are socialistic in their tendency.

#### OPINIONS OF WORKINGMEN.

Only twenty-one workingmen answered the circular of the Bureau. Eighteen of these are enthusiastically in favor of the proposition, and several of them ask that the limit be fifteen or sixteen years. The arguments offered are that a raising of the age limit would better the child physically and mentally, and would increase the demand for adult labor, and would, therefore, in those several ways, result in gain to the community. Two workmen oppose a change in the law because of anticipated hardship, and another writes that children under fourteen years of age should attend school at least sixty days in the year, which is the provision of the existing school law.

#### FROM THE TEACHERS' STANDPOINT.

Thirty-six superintendents or teachers of schools replied, twenty-nine of them in favor and seven in opposition. Here again the fear of hardship through the law is expressed by three of the correspondents, while another objects that a change in the law would give comfort to the Socialists. One sees no need of a change, another regards the present law as unjust, and another thinks that any law on this subject is an infringement of the rights of the parent and of the child, unless it limits the number of weeks to be yearly employed.

It is advanced by one that the thirteenth year is the best time in which to acquire technical skill. Per contra, many who argue for an increase in the age limit, do so on the ground that children learn much more of profit to them in their thirteenth year than in any previous year of their school life. Other arguments in favor of a change are that it would be beneficial physically and intellectually, and that it would result in great good to the child and to posterity. The State, it is urged, should provide adequate education and

preparation for its future citizens, and none need this so much as those who are compelled to work at the age of thirteen.

These arguments are accompanied by suggestions of needed changes in the school laws, whereby there might be broadened opportunities for education and a more effective enforcement of the compulsory law.

#### HOW THE DOCTORS DIFFER.

Only five of the thirty-one physicians replying to the circular letter oppose a change in the law, and one of the five believes that the change would be wise if it could be made practical. Two oppose it on the ground of hardship, one sees no special reason for a change, and another believes that children are sufficiently mature at the age of thirteen. A majority of the twenty-six who favor a change hold that view mainly for physical reasons, particularly in the case of girls. Others desire it in justice to the child and to the adult workers, and others in order that more extended school attendance be made compulsory.

The more interesting of the 160 letters received by the Bureau on this subject are here presented :



## MANUFACTURERS.

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HUNTINGTON.—We are much in favor of changing the law, limiting the age of children that may be employed in mercantile or manufacturing establishments to fourteen years. We believe that an additional year in school at that age would be of great value to the child and also to the State.

TORRINGTON.—My view is that no establishment of any kind should employ children under fourteen years of age. I do not believe it profitable to either party.

MIDDLETOWN.—I think it would be well enough to place the age at fourteen when children should be employed in factories, as there seems to be a disposition on the part of the parents to get the income from the services of their children, who are thus deprived of the education they are entitled to.

MONTVILLE.—While we candidly believe fourteen years the best age limit, yet in many instances it would be a hardship to the children themselves, by depriving their parents of children's help in large and very poor families.

MERIDEN.—I think that there are many instances where it works a great hardship to prohibit the employment of children between thirteen and fourteen years of age, in many kinds of light work, providing always that they have proper school attendance. A child thirteen years of age may often help a widowed mother without harm to the child.

COLCHESTER.—We think any age limit on minors is a mistake, for some children develop at an earlier age than others, and what would be a hardship for one child of thirteen or fourteen years would be perfectly easy for another. Then, again, the family circumstances should be considered. In some cases it is highly desirable that children should be given light employment at an early age to assist the family resources, and in other cases this is not at all necessary. We therefore think that the matter should be left to the selectmen of the town, who, knowing the circumstances and being able to ascertain the condition of the applicant, could determine whether he should be employed at an immature age.

WATERBURY.—My opinion is that it will be unwise to pass a law that will prevent the employment of children under fourteen years of age. It would often bring hardship and suffering to the children and the families with which they are connected. I do not think the children as now employed are urged to work beyond their strength, or that they suffer in health from the employment. I believe that, as a rule, the parents of children are more apt to sacrifice their own health for the sake of their children, than they are to put their children to work needlessly at an early age. It seems to me it

would be safer to leave the question of the employment of children under fourteen years of age to the parents and guardians of those children, rather than to make an absolute law which would be binding in all cases.

NEW BRITAIN.—The introduction of manual training in the systems of public education in some of our western cities, and the results in Germany, France and England, as well as in our own country, have seemed to demonstrate the fact that a certain amount of industrial work has been helpful to intellectual culture. Prof. Felix Adler says: "During the experience of twelve years in the application of manual training in the teaching of children between six and fourteen years of age, I have observed that, in the ordinary school, the regular work of the school has been strengthened by the introduction of manual training." Similar testimony is given in Boston, Chicago, St. Louis, Cleveland and other cities. Where there are no manual training schools it is possible that a few hours a week in some shop might be helpful to a boy of thirteen or fourteen years of age, and contribute to his higher and complete education. I should not think it advisable to forbid it in such cases.

NEW HARTFORD.—It makes very little difference. Parents and guardians falsify so in regard to it that we are entirely at a loss to know how old the children are. If a family have two or three children, eleven, twelve or thirteen years old, that were born here, they will leave New Hartford and go to some other village, where they can swear their children into the mills.

NEW LONDON.—On general principles I favor the utmost compulsory school attendance. An added year would be desirable if school attendance was secured thereby, but not otherwise.

PUTNAM.—Fourteen is as young children as we care to employ in our mill; sixteen preferred. But to say that children shall be compelled not to assist in their support until at the age of fourteen might be no benefit to them and a hardship to the family. On the other hand, I should not like to know that any child under nineteen was compelled to work if in ill-health. Absence from work does not necessarily imply presence in school. In that case I would say a healthy child would be much better off at some light work than loafing on the street. I think every child should have a good education. If we had a class of walking delegates, urging parents to educate their children, keeping the subject to the front constantly, it would answer many questions without any more law being enacted.

WINDHAM.—The law applying to the employment of children is correct as it now is. The law provides for only thirty-six weeks' schooling in our district schools, and in a great many districts only thirty weeks. This leaves a large number of children idle, or running the streets, who might be a great help to the parents when it is impossible to get schooling.

BRIDGEPORT.—Children below the age of fourteen ought to be in school, and they are often employed unwillingly because of the selfishness of their parents and their desire to have them help earn a living.

STAMFORD.—We believe that anything tending to raise the standard of education and of intelligence will result in ultimate and permanent benefit to all interests of the State, including its industries.

MANCHESTER.—We do not feel that with the present facilities for doing work in mills and other places where young people are employed that thirteen years is any too young for children to be employed.

VOLUNTOWN.—We say most emphatically, no; the limit should not be raised. On the contrary, the present law should be repealed, and there should be no limit at all. Why don't we limit them to twenty-one years of age, or when they reach manhood? And as they would then not know how to do anything they would doubtless decide that they preferred never to learn. Nothing can be more absurd or ridiculous than to prescribe against certain kinds of labor. What can be more servile to children than farm labor? The law should have nothing to do with the employment of minors. The law should make it a crime, punishable by imprisonment at hard labor, for any parent to have a child reach the age of eighteen years without a good common school education, and no man should ever be allowed to cast a ballot who could not read intelligently in the English language and does not possess a good general knowledge of the history of the United States. With these provisions rigidly enforced other matters would take care of themselves.

WINDSOR LOCKS.—Am disposed to believe, from casual observation, that fourteen or even sixteen years would be a suitable age limit, provided that, prior to that age, the laws relative to children were duly enforced and the children restrained from getting into idle and vicious habits and forming evil associations.

DERBY.—We think it would work a hardship to the poor people, while it would benefit the employer, as it would do away with the trouble that now exists in regard to "schooling." We think that children over thirteen years old are capable of earning quite a little sum while out of school, and it would not be any more injurious to them physically than to have them on the street; in fact, it is much better for the boys to be employed while out of school than to lie around some loafing place. We had contracts at House of Refuge, Randall's Island, for several years, whereby we had at work from 500 to 700 boys of all ages, from eight to twenty. They found it better to give even the youngest employment for about six hours per day than to keep them idle. We now employ 150 boys at the Catholic Protectory, West Chester, N. Y. They have about 1,500 boys of all ages, but they aim to keep all at work a portion of each day. Both of these institutions have made this matter a study, and have adopted this plan as being the best for the children under their charge. Very few children are sent to such institutions that have been kept in school or at work when not at school. We don't think the present law can be improved, if you consult the interests of the poor and needy people with large families to support.

STONINGTON.—The age limit should be raised to fourteen years, simply because education will pay a hundred fold more to the people of this State and this nation, in the long run, than the one year's time in a manufacturing establishment.

THOMASTON.—We think the limit of age under which children should be employed is sufficiently high now. Our observation is that people do not

put their children at work at thirteen unless they are obliged to. Should rather favor reducing the limit to twelve years than advancing it to fourteen. Of course the physical condition and size of the child has a good deal to do with it.

NORWICH.—I think there are many cases where it would work a hardship, the labor of the child being necessary to the support of the family; and, as in many country villages the school year does not cover more than twenty-six weeks, the child would be more likely to acquire idle and vicious habits if roaming about, than if regularly employed. There are still more cases where it would be of no effect, as a large portion of the children would be found to have been born out of the State, and the parents would have no hesitation in making false statements as to their age. I think very little would be gained by a change in this law.

NORWICH.—We believe that the object of this law was to lessen the number of the unemployed and increase the rate of wages, rather than to help the child. That it has failed to meet the expectation is evidenced by the effort to raise the limit another year. The further control of the child by the State, rather than by the parents, is another step in the direction of the Socialists. Parents are not inclined to overwork their children when unnecessary, and to prohibit the work when necessary is enforcing idleness, reducing the income of the needy ten to twenty per cent., inducing pauperism, and falling heaviest upon the poorest.

NEW BRITAIN.—We most heartily approve. It would not effect us much in our mills, but if it did we believe it is a just and beneficent law, and ought to pass.

NEW HAVEN.—After a child is over thirteen, he should be allowed to learn a trade, or enter into any mercantile or manufacturing pursuit.

HARTFORD.—I think fourteen years a low enough limit. Those who attend school until fourteen years old are of more value in after years, both to themselves and to their employers.

MERIDEN.—We do not employ in our factory any labor under sixteen years of age, and I firmly believe in the wisdom of increasing the limit to fourteen years. I am aware that there are cases where large families may receive substantial aid from the wages of their children under that age, but the effort made to prevent it will do a vast amount of good in keeping many children in school at an age that will enable them to secure lifelong benefits, as well as to maintain a higher scale of wages for those who are older.

MIDDLETOWN.—Children who are thirteen years of age, and who go to school sixty days in the year under the present law, and are employed in the mills most of the rest of the time, are doing quite as well as they would if the age limit were raised from thirteen to fourteen. Most of these children are better off in the mills than they would be around the streets in vacation, and a large portion of them are quite as well off as they would be at school. There has been a great advance in the wages of this class since the present law went into effect. We are paying such help now from \$2.75 to \$2.50 per week, when before it was from \$2.00 to \$2.50. It would not be to the interest of the manufacturer in this State to have a change. It is doubtful

whether too rapid and severe legislation ought to be laid against manufacturing enterprise in this country. Town, county, school, and war taxes, and the everlasting balance of freight against us make the way of the manufacturer painful and arduous in the State of Connecticut. A good deal of unfriendly legislation would run him out of business, as has happened to his predecessor, the farmer.





## WORKINGMEN.

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TORRINGTON.—I favor the age of thirteen for the reason that I have observed, during twenty-five years' experience as superintendent of a factory, and ten years as a member of the Board of Education, that parents are inclined to keep their children in school as long as possible, and often make great sacrifices to that end. It is very seldom that the parents have the desire to put their children to work in factories before the age of fourteen, unless necessity compels them to do so, and I have known a great many cases where exclusion from factories of children who are thirteen years old, has worked a great deal of hardship to invalid parents. Instead of placing so much stress on the age, greater consideration should be given to the kind of work that children should be allowed to do.

NEW BRITAIN.—I would heartily endorse the fourteen year limit; first, for the physical protection of the child; and second, because the employment of children tends to decrease the demand for adult labor.

BRISTOL.—The advantages to be gained from raising the age limit would be greater than the disadvantages, although it would undoubtedly work hardship in some cases. The increased time for mental and physical growth would more than balance accounts, even from a financial point of view, before the child became of age. It certainly would be a good thing for the adult workman to get rid, to a certain extent, of the competition of child labor.

STAMFORD.—I am strongly in favor of raising the age limit from thirteen to fourteen, to be followed in a few years by a raise to fifteen and to sixteen. The change would be beneficial to our people, especially to posterity. This opinion is prompted from a long experience as an instructor in physical culture and athletic exercises.

SOUTHINGTON.—If I could enforce the law I would make the age limit sixteen. Work at too early an age results in a broken-down constitution and an injury to the moral nature. It also injures the cause of labor a great deal.

MERIDEN.—It is a move in the right direction, and I think the best interests of all concerned would be further advanced by making the limit fifteen instead of fourteen.

VERNON.—My experience and practical observation has proved to my entire satisfaction that thirteen, and even fourteen, is not sufficient to give children enough time at school to become good and useful citizens. The limit ought to be sixteen. I have seen children, before the age limit was

placed on their employment, go to work at the age of eight or nine. I have watched some of them grow to manhood, when they could not read enough to become voters. In other cases they have grown up to be vicious men and women, because they had not the opportunity to cultivate the finer instincts.

GREENWICH.—I am heartily in favor of raising the limit to fourteen, and fifteen or sixteen would be better. First, for the good of the child, giving him a fair chance, mentally and physically, to meet the duties of life later on, so that he can be governed by his reason, and not by his ignorance or prejudice; second, for the good of the parents, for, as working people, they feel on every hand the competition of ignorant, unskilled labor; third, for the good of the State, as helping to make intelligent citizens with the good of the State before them, rather than ignorant men, easily swayed, and in natural hostility to all law.

MERIDEN.—Under present social conditions I believe it would be well to raise the age limit to fourteen years. We might then rest assured that children will at least be thirteen years old when put to work. The unlimited employment of children tends to limit the opportunities of their fathers for work.

WALLINGFORD.—The limit should be raised, for I consider the benefits in education to be obtained by the boy in those two years, thirteen and fourteen, to be of incalculable benefit to the man, in no way to be measured by any trivial loss which those needing the child's help may, for the time being suffer.

DANBURY.—I am heartily in favor of the proposed change, but think that fifteen ought to be substituted for fourteen. I believe that children get more real benefit in school between the ages of thirteen and fifteen than during the years previous. Many parents, for the paltry sum that their children can earn, are willing to rob them of their education and to take the chances of wrecking their whole life, both morally and physically. Every child so employed forces an adult out of employment, or compels him to work for child's pay. There are cases where such a law may work hardship, but such cases are few, and, taking into consideration the great injury to the child's health and the injury inflicted upon those who are obliged to compete with the children, as well as upon society at large, it would seem to be much better that in those cases where the law might work hardship assistance be given. The present system is the means of multiplying such cases of hardship. But the change would be of very little use unless accompanied by some means of enforcement, more efficient than the method now used to enforce the labor and school laws.

WINSTED.—I have consulted with many citizens and find the general sentiment to be in favor of raising the age limit to fourteen.

DANBURY.—Your letter was presented before the Central Labor Union of this city for discussion. It was their decided opinion that the age limit for the employment of children should be placed at fifteen; that a child between the ages of twelve and fifteen would perceive the benefits of education and would learn more at school during that time than at any other

period; also, that each child receiving employment takes the place of an adult.

WALLINGFORD.—The intent is good, but it would work a still further hardship in many cases. I think there are many healthful pursuits in which children, even under the age of thirteen, of healthy body and mind, could be of great assistance to their parents by working a fair number of hours per day. But for these good night schools should be provided.





## SCHOOL SUPERINTENDENTS, PRINCIPALS, AND TEACHERS.

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BRIDGEPORT.—When one thinks of the fierce competition with which the workingmen and women of to-day have to contend, and that this competition will, in all probability, be increased rather than diminished, it seems to me that nine years, from the age of five to fourteen, is a meager enough preparation for the battle of life. In my humble opinion it is the sacred duty of the State to provide adequate education and preparation for those who are to become its future citizens.

MERIDEN.—Children whose parents belong to the class who would make them work as soon as the age limit is reached are the ones least fitted to leave school. I favor raising the limit to fourteen years.

NEW LONDON.—I wish that every child were obliged by the State to attend school until fifteen years of age.

ANSONIA.—Regarding the future intelligence and health of the man and his offspring I unhesitatingly say fourteen.

GREENWICH.—After an experience of twenty-eight years in the school-room, and several years' experience with people brought up in the city, in stores and factories, and out of doors on the farm, I am free to say that our factories, stores, and schools are ruining the human race, physically and intellectually. Children, like plants, need plenty of sunshine and they must have an abundance of pure air, found nowhere in such abundance as in the open field. Raise the age to fourteen (and sixteen would be still better), then require the children to be kept in the sunshine, away from the tobacco-laden, saloon-polluted air of our crowded cities, and in a few years the rosy cheek, the keen eye, and the quick, elastic step, will take the place of the hollow cheek, the sallow complexion, the dull, sunken eye, the listless disposition, and the laggard step. Children should work and study, but let them be employed only in the sunshine and pure air.

WILLIMANTIC.—I am not in favor of the proposition. My reason is that it is an infringement of the rights of the parent and of the child. If it limited the number of weeks yearly when the child should be so employed I should consider it just and moderate, but many a boy from thirteen to fourteen is strong, active, and healthy, able and glad to earn a little money during the weeks of the summer vacation. By being thus employed it may be possible for the children of poor parents to add months to their life in school. Many other boys would be glad of the spare money such employ-

ment would give them. In this way ideas of business life may be inculcated, habits of industry and frugality formed, and a better appreciation of the advantages of school life may be reached. Comparatively few children under fourteen years of age should be employed in establishments, but it seems to me very unjust for the State to say to mothers indiscriminately, "You shall not have the help your boys would give you," and to boys, "You shall not have the money you would like to earn."

NORWICH.—In favor, in order to conserve the interests of the children and the efficiency of citizenship.

WATERBURY.—I think that the development of the child's mind by being in school, in respect to ability to think and reason, is increased from 25 to 50 per cent. more in the thirteenth year than in any preceding year. The more the worker becomes capable of reasoning and the more intelligent he is, by so much is he raised above the kind of employment in which physical or brute strength is requisite, and the tendency of which is to make the worker a mere machine.

HARTFORD.—Unreservedly I say raise the age to fourteen, primarily for the good of the child, incidentally for the good of the Commonwealth, for whatever benefits the child benefits the State. The first thing to be considered is the physical condition of the child, which is liable to deteriorate by reason of long hours at confining toil and often in unsanitary surroundings. Then, the sub-division of labor makes the work of operatives so monotonous, makes them so like a part of the machinery, that it tends to dwarf the intellectual powers of the child. It is but a slight education that ordinary school children acquire before the age of fourteen, and neither parents nor guardians should have the legal power to deprive them of the advantages of the public schools to the age of fourteen, at least. To do so is a wrong to the child, and to the State, also, by increasing the volume of illiteracy, a volume quite too great already. Better for the welfare of the community that it assist the family now that cannot live without the labor of the children under fourteen than incur the evils incident to that labor.

MERIDEN.—From a purely educational standpoint I should say fourteen years, but viewing it in the light of family necessities, I should say thirteen, as beyond that age many poor families need the wages of children, and in my opinion have a right to them.

NEW BRITAIN.—Believing as I do that every boy ought to have a fair chance in life, and as good an outfit as he is capable of using, I should think that the age of fourteen is early enough for the average boy to leave school. Of course there are exceptions. Any law may, in certain cases, work hardship, but the boy, even at fourteen, is hardly able to understand himself and his capability, and the State ought to stand between him and his own immature impulses, and as often between the boy and the selfishness of parents. I believe that few boys of average intelligence, who have been removed from school, or who have left school of their own accord, before the age of fourteen, fail to regret their loss often in after years.

TORRINGTON.—My belief is that it will conduce to the best interest of all if the age limit were raised to fourteen years. The distressing condition of business, which bears so heavily upon our laboring classes, may, however,

make it absolutely necessary for poor people to put their children at work at a much earlier age than fourteen.

HARTFORD.—I am emphatically in favor of raising the age limit. It will result in the higher aggregate intelligence among our industrial classes, and will thus prove a benefit to the Commonwealth. I think our compulsory laws are not stringent enough, and certainly there are altogether too many greedy citizens defrauding the State by persistent efforts to evade these laws.

BRIDGEPORT.—Considering the highest interest of the youth of the Commonwealth, it is my opinion that it would be best to raise the age limit, but with this change the State should offer the youth greater opportunities in instruction.

PUTNAM.—I strongly favor the proposition to raise the age limit, for one year of mental and physical development has much to do with the whole after life of the average child. I wish, further, that we could somewhat check the tremendous rate at which we are living, and establish the limit at fifteen, or even sixteen.

STAMFORD.—If the children could be kept at school one year longer it would greatly benefit them, while lessening the income of the family only a little, as their wages are then small. The law, as it now stands, is not carried out in Stamford, but we hope to see a change.

NEW HAVEN.—The present law seems to be a good one; reasonable, and pretty strongly enforced. I do not believe a change, raising the limit to fourteen, is necessary. I know cases where such a raise would cause hardship.

MIDDLETOWN.—Am in favor of increasing the age limit; think it should be fifteen years, with power vested in some person to make exceptions where extreme poverty seemed to require it.

NORWALK.—Heartily in favor. From my experience as principal of a large public school in a manufacturing town, I am of the opinion that the laws relating to compulsory education need careful revision, with a view to making them really effective.

NORWALK.—Such a change must work very beneficial results if carefully carried out. But, if unexecuted, it would better not be made. A law, such as contemplated would do much to establish a "fashion" among children about going to work, and make it "the thing" to stay at school through the grammar grade. At a time when so many men can be secured, it seems unfair to reduce the standard of daily wages by the employment of child labor. It makes our wealth in the increased proceeds of the employer, but not in a higher standard of education among the employes, which is a desirable condition in a republic. Make the change, execute the law when passed, and I believe the advantage both to employer and employes will, in the end, be manifest.

VERNON.—It would be very undesirable that our youth should be allowed to reach even the age of thirteen without being trained to do considerable work, but this should by no means be the hard and confining work of our mills. I think, on the whole, it is desirable to raise the age limit from thir-

teen to fourteen years. Of equal importance is the need of much more stringent means to secure compulsory school attendance.

MERIDEN.—Comparatively few children under fourteen years can complete a grammar school course, that is, acquire a sound English education, fitting them for business positions. It would seem in this country that every child should be given this chance. Parents in a city like Meriden are too poor or too indifferent to allow their children the opportunities which a good common school education would afford them, unless obliged by law. There are difficulties, but, leaving good citizenship out of the question, it would seem that the State would be benefitted by the change.

MANCHESTER.—The question comes from the parents' side rather than from the child's. In other words, the parent or guardian looks to the age at which his child can be utilized for pecuniary advantage. At about the age of its development in virility is noticed a degree of appreciation of the realities of life and use of their knowledge and power. The advantages of training is of largely different significance to them. One year in school after the age of twelve is worth that of two years before that age; therefore, it gives the child half a chance to be made a man, not half-boy and half-man. He is entitled to the best he can be fitted for. Give him, at least, three full years after twelve.

BRIDGEPORT.—My opinion is that the desirability of boys of fourteen attending school would be very positive in its favor. I am, however, so new to the workings of the Connecticut compulsory law, that I am unable to express an intelligent opinion as to the feasibility of increasing the age limit. My opinion would be based largely upon the amount of friction with which the present law is operated.

NEW HAVEN.—I find the present law unjust in its practical working, and should think that the increase in the age limit would be to make the injustice greater.

NEW HAVEN.—The age limit should not be raised, for, (a) the restriction of the right of the individual and the enlargement of the rights of the State involve an important and dangerous principle; (b) there might result an undesirable tendency to shift the responsibility of the parent towards his child in other respects; (c) children of fourteen have largely passed the more important formative periods of their lives; hence, any argument based on purely physiological or physical grounds should be left out; (d) further, in the absence of any more serious objection, if the child were destined to spend the labor of a lifetime in any of the occupations suggested, it might become a serious drawback to the later usefulness and personal advantage of the child to prevent the acquirement of technical skill and certain forms of business facility at the most receptive and imitative period of its career.

NORWALK.—To raise the age limit is right, and for the best interest of all concerned. Every year after the tenth of a child's school life increases in importance as to his power for development and preparation for life's duties and hardships.

VERNON.—I am strongly in favor of children obtaining all the knowledge possible in our common schools. There is a strong tendency in many parents to falsify the ages of their children, because of the necessity of their help to support a large family. Could the law be fully carried into effect, and all children be compelled to attend school faithfully, as the law provides, I would let the law remain as it is.





## PHYSICIANS.

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ANSONIA.—In my opinion, even the age of fourteen is too young in most cases for anyone to be employed in any manufacturing establishment. No person, especially in the case of females, should be employed where they require most of their time on their feet until the body is fully developed.

DERBY.—A reply to your question is difficult, because of the varying age of maturity among children and the degree to which injury might result from early confinement in business places. Taking into consideration the class to be affected by the proposed legislation, I am in favor of the fourteen year limit. Intelligent and well-to-do people will be guided by the taste and ability of their children; the others only by money considerations as a rule.

MERIDEN.—I am very strongly in favor of such a raising of the age limit. I only think that the limit of fourteen years is not by any means high enough. The power and culture of a nation depends upon the development of the character, the intellect, and the body of the members. The time for this development is mainly the age until about twenty years. It is evident that the work in shops, factories, stores, etc., is not only in most of the cases hurtful to the health and the good physical development of the body, but that it is very often exercising only a very small portion of the faculty of the brain, and that the moral atmosphere is by no means so pure as in the family or in school. Scientific research has shown that working in shops, stores, etc., deteriorates any age, and most of all the children and younger individuals. The effects of industrial work on individuals, especially also on their power to produce a strong and healthy progeny, have proven a curse to our civilization. To raise the age limit of working children to fourteen years would, therefore, be highly advisable for those wishing to keep up the standard of the human race.

WALLINGFORD.—I should be in favor of increasing the limit to fifteen, thus allowing better physical, intellectual, and moral development among children.

BRIDGEPORT.—I believe it wrong to any child—and by the term child I mean any person who has not attained the age of puberty—to be employed at any work which shall tax his mental or physical endurance for other than a short period without rest. Until this period is passed and the child well ushered into the state of youth, I consider it detrimental to his or her mental and physical development to be put at constant work, and I believe this to be more especially true of females, who, being of more delicate

mould, have not the power of standing as severe strains as the male. The employment of children in mechanical, mercantile, or manufacturing establishments, where their duties are often performed in close, ill-ventilated rooms, the hours of work long and the child's energies constantly exhausted, is an evil which has been foreseen, and by statute prevented until the child is thirteen years of age. But, unfortunately, this limit is placed at too early an age, and should be increased to at least fourteen and one-half years.

DANBURY.—I have known of many young boys and girls, particularly the latter, who have been forced to work beyond their strength, and have incurred diseases from which some of them died. Thirteen years of age is the time when a girl generally develops into womanhood. They are growing rapidly, and are not at this age fit to work eight or ten hours a day, some of them constantly on their feet.

NEW HAVEN.—Most children are sufficiently matured at thirteen years of age to be employed as contemplated by the present law.

ENFIELD.—It is grossly wrong to put a child of that young age away from school to work, because the valuable time lost from school can never be made up. I hope soon to see the day when children will be compelled to go to school and not allowed to go to work until they have reached at least the age of fifteen years.

GREENWICH.—The longer, as a rule, a child can be kept out of a factory, the better for the child, physically and mentally, if not morally. Taking into account the frequently under or overheated, badly ventilated, and sometimes crowded rooms of our factories, in many cases the air vitiated with unwholesome gases and the operators working in darkened rooms or by artificial light, and, added to all this, the confinement from eight to ten hours a day, it requires no vivid imagination to realize how harmful a factory life must be to a rapidly-growing child. From twelve to sixteen years of age the system needs the maximum amount of fresh air, sunshine, and exercise. This is more particularly the case with girls. Every physician whose practice lies in a factory district is not infrequently witness to young lives wrecked as the result of factory life.

KILLINGLY.—For the past eleven years my practice has been largely among the families of those employed in cotton mills. I have time and again noticed that their children of thirteen to sixteen or more years are pale, apparently of under growth, and lack vigor. Parents, especially the foreign born, almost universally place their children in the mills as soon as the law allows, and I believe in many instances much sooner. They look upon their children as so much live-stock, capable of producing an income.

BRISTOL.—I think that the youth of our land of both sexes should be allowed to develop, both mentally and physically, as much as possible before being put to heavy labor. I think that we owe it to them to protect them both against ignorance and being stunted by labor while the body and its functions are developing. I think further that we owe it to ourselves and to our successors that everything should be done to make good and healthy citizens. Therefore, I favor raising the age of labor as much as possible

without too much economic disturbance. I think also that by keeping children from competition with men the general labor of the country would be better paid for.

PUTNAM.—If the proposition could be amended so as to read “And they shall be compelled to attend some public school until they have attained that age,” I should be still more in favor of it, but the proposition as it reads cannot help being a benefit, for as the majority of children come to maturity between the ages of twelve and fourteen, it seems to me that certainly at this time, if at no other, they should be entirely freed from anything that would tend to tax their physical powers in the least.

NORWICH.—There is no question in my mind that as far as health is concerned many children under thirteen years of age cannot bear the confinement and restraints of labor in any establishment; neither would they do any better in a schoolroom. But there are other considerations of great importance in these matters which must not be overlooked. To say to the very poor that they cannot commence to learn business or a trade at the age of thirteen might be a great hardship, discouraging the applicant and pauperizing the poor parents. If the child at the supposed age dislikes the school and cannot be made to attend to its duties, except under severe laws and discipline, there is very little good to be derived from it. On the other hand, if it manifests a decided taste for a certain trade or employment, that taste should be encouraged and properly directed. If health permits, the law ought not to say “You can have no employment except on the farm or at school.” Idleness will prove a very demoralizing thing to girls or boys at thirteen years of age. Many of the operative class are very poor and ignorant, and if they remain hungry they will remain poor and ignorant. Could we have everything as we wish we would educate physically, mentally, and morally, thus preparing for good citizenship. For healthfulness the fourteenth year would be a better limit for boys and the fifteenth for girls, if it were practicable, but I think it is not at present.

NEW LONDON. Children should never be confined indoors at any kind of employment before fifteen years of age. Their health and development require a wide range of outdoor exercise. Laws should be framed to make better citizens, and I can conceive no way to better do it than by education, so I would compel every child to attend school nine months in each year, from the age of ten to fifteen, and would encourage industrial training with literary. We have more labor than is required for all our needs, without the employment of minors under fifteen years of age. The laboring people should demand it, and I believe it would meet universal approval if rightly understood. I know there may be arguments against it, such as poverty, etc., but labor demands eight hours a day in order to get employment, then why not give years to growth and fitting for after life? In a health point of view, the germs of consumption and of other wasting diseases have often been sown in early childhood by exhausting toil and confinement. A careful study informs us that those nations where the young are early put to hard manual labor in order to make an existence have grown short in stature and puny in health, especially if largely confined to indoor work;

while nations who have worked equally hard outdoors, in cultivating the soil, are much more robust.

WATERBURY.—I am only in favor of raising the age limit to fourteen on condition that one more year be added to the age wherein the child shall be compelled to attend school, and that books and other apparatus necessary to be used in that said year be paid for by the State.

GREENWICH.—Speaking broadly, I am thoroughly in sympathy with the movement to raise the age limit of children in employment, but I would raise it to sixteen years. I would add that I think discretion should be given to some person or body in each town, say the town board of school visitors, or the judge of probate, or the agent of the Connecticut Humane Society, who should have the power to authorize, in certain cases, the lawful violation of the rule.

WALLINGFORD.—I think fourteen years of age young enough for a child to go into a shop or store to work, because up to that time, at least, they ought to attend school, and also, because going to work much earlier in life lays the foundation for a sickly, miserable existence later on, in a great many cases.

NAUGATUCK.—In view of the higher educational requirements in every department of life, it would be a most excellent plan to raise the age limit.

SOUTHINGTON.—I think the proposition an undoubtedly wise one, and would be heartily in favor of such a measure on the ground of improvement to not only the individual children, who would be benefitted, but to the public at large.

DANBURY.—I think there are grounds in favor of both sides of the question of having the children remain inactive or to go early to work. I think that many of the trades and mechanical works are less injurious than the pernicious manner of allowing boys to load themselves with from twenty to fifty pounds of newspapers, and take a long tramp to sell them. If the school laws can be strictly enforced, my judgment would be in favor of raising the limit. If not, I believe that work would be less harmful than idleness. I seldom see cases where, it seems to me, that boys are broken down by too early application to trades, or apprenticeship.



## Farms, Homes, Mortgages and Interest.

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The mortgage movement in a community is, in some respects, a symptom of its condition—not necessarily a symptom of illness, but sometimes an indication of prosperity. A mortgage is not a desirable thing, to be sure, but when it is not out of reasonable proportion to the security, and is not commanding more than the normal rate of interest, it does not involve much more of a drain than a like amount withdrawn from a savings bank and invested in a home. No one can escape the payment of rent, and it is practically an even thing whether a man has invested in his house his own savings, which, if invested otherwise, might earn five per cent. for him, or the borrowed savings of another, on which he has to pay five per cent. Moreover, the desire to own absolutely and to be beyond the danger of possible financial disaster to the roof-tree, makes a mortgage an added incentive to saving.

### MORTGAGES AND PROSPERITY.

Even an increase of mortgage indebtedness in a community, out of proportion to the increase in the true value of real estate, is not of itself anything to cause alarm or distrust. To cause that it must be accompanied by other and more pronounced signs of financial unsoundness. As a rule, a mortgage is incurred not to cover financial reverses, but to further an investment. It is banking upon the future, and it implies an expected ability to pay the debt incurred. It is entirely within the bounds of reason, therefore, that the heavier the burden assumed the better the promise of future ability to pay. Present conditions are the foundation on which are built the hopes of the future, and a present growth in mortgage indebtedness, out of proportion even to the increase in property valuation, may be accepted as a sign of present prosperity and of a hope of an even more prosperous future.

## EXISTING MORTGAGE DEBT, JANUARY 1, 1890.

For figures regarding the mortgage movement in Connecticut, reliance is had mainly upon the statistics furnished by the Census Bureau. The census tables of recorded indebtedness by years may be accepted as accurate. They are summaries of facts which are a matter of public record. Payments on mortgages, however, are not a matter of record, and the difficulty of obtaining knowledge of such payments, on which must be based a statement of existing mortgage indebtedness at any given time, is at once apparent. The Census Bureau agents endeavored to learn these facts, and from such information as they obtained they make the positive statement that the real estate mortgage debt existing in Connecticut, January 1st, 1890, was \$79,921,071. This debt the Census Bureau thus divided, by counties:

## MORTGAGE DEBT IN FORCE JANUARY 1, 1890.

COUNTIES.	Total.	On Acres.	On Lots.
THE STATE, . . . . .	\$ 79,921,071	\$ 13,176,736	\$ 66,744,335
Hartford, . . . . .	14,844,878	3,289,161	11,555,717
New Haven, . . . . .	27,937,132	1,521,546	26,415,586
New London, . . . . .	5,742,760	773,384	4,969,376
Fairfield, . . . . .	21,916,605	3,737,704	18,178,901
Windham, . . . . .	2,278,943	968,390	1,310,553
Litchfield, . . . . .	3,684,966	1,740,114	1,944,852
Middlesex, . . . . .	1,584,966	591,889	993,077
Tolland, . . . . .	1,930,821	554,548	1,376,273

Of this existing debt, \$13,176,736, or 16.49 per cent., was on acres (farms), and \$66,744,335, or 83.51 per cent., on lots (town and city property). The per capita mortgage indebtedness was \$107, and for purposes of comparison the per capita in some other States is given: Alabama, \$26; Illinois, \$100; Iowa, \$104; Kansas, \$170; Massachusetts, \$144; Missouri, \$80; Nebraska, \$126, and Tennessee, \$23.

## RATIO BETWEEN DEBT AND VALUATION.

' In the ratio between the debt and estimated true value of all taxed real estate," the Census Bulletin says, "Connecticut is repre-

sented by 20.14 per cent." The Census Bureau's estimate of the true value of real property in Connecticut in 1889 or in 1890 is not at hand at this writing. But, applying the per cent. ratio to the existing debt, gives as "the estimated true value of all taxed real estate" in Connecticut, January 1st, 1890, \$396,827,562. That sum is certainly much too low, and for that reason Connecticut makes a poor showing, in comparison with other States, in the ratio between existing debt and the true value of real property.

The Census Bureau's estimate of the true value of assessed property in Connecticut in 1880 was \$779,000,000, the ratio between the true and the assessed value being 42 per cent. Personal property escapes the eye of the assessor or of the census agent more successfully than real property. It is fair, therefore, to apply to real property the ratio found to exist between the assessed and the true value of both real and personal property. Applying that ratio of 1880 to the assessed valuation of real property in Connecticut in 1890, as given by the Census Bureau, and the estimated true value of all taxed real estate in Connecticut in 1890 is found to be \$618,134,614. The ratio between that and the existing debt of \$79,921,071 is 12.93 per cent.

#### MARGIN BETWEEN ASSESSED AND TRUE VALUATION.

But if the ratio of 42 per cent. between assessed and true valuation in 1880 was correct, it does not follow that the ratio remained for 1890. There is evidence that the margin in Connecticut between assessed and true valuation widened during the decade. Between 1880 and 1890 the increased per cent. of population in Connecticut was very close to the average of the States in the North Atlantic group, while the increased per cent. of assessed valuation was only 9.70, the average increase for the group being 40.54; and the assessed valuation per capita decreased from \$525.42 in 1880, when it was a trifle above the average, to \$480.95 in 1890, or \$129.63 below the per capita for the group. It is evident, therefore, accepting the ratio between assessed and true valuation in Connecticut in 1880 as being approximately correct, that the estimate of \$618,134,614 as the true valuation of taxed real property in Connecticut in 1890 is too low. That would make the ratio between the existing debt and the true valuation of real property less even than 12.93 per cent., which is much less than the 20.14 per cent. stated in the Census Bureau Bulletin.

The ratio between the assessed and true valuation of real property in Connecticut in 1890, tentatively adopted by the Census Bureau, is 66 per cent. That would give as the estimated true value of real property in 1890, \$393,358,391, or about three millions less than the estimate found by applying the ratio between the existing debt and the true value.

#### ESTIMATE OF PAYMENTS.

No comparison can be made between the mortgage debt existing January 1, 1890, and the existing debt ten years prior thereto, as mortgage statistics were not gathered in the ninth census. But, assuming that the existing debt is greater than it was ten years ago, it is apparent that the amount of mortgaged indebtedness liquidated during the decade was in excess of the debt existing at the end of the period, though not equal to the debt incurred during the period.

#### SOME DERIVED RESULTS.

Of the 57,996 mortgages reported to be in force January 1st, 1890, 12,311, or 21.23 per cent., were on acres, and 45,685, or 78.77 per cent., were on lots. There is a notable difference between the per cent. of the number of mortgages on acres and the per cent. of the existing debt on acres. The mortgages in force covered 440,360 acres (about one in six) and 40,416 lots. The average number of acres covered by each mortgage in force against acres was 36, the average amount of debt per mortgaged acre being \$29.92, and per assessed acre, \$5.30. The average amount of debt to each mortgage in force against acres was \$1,070, and to each mortgage in force against lots, \$1,461.

#### DEBT RECORDED IN TEN YEARS.

The debt incurred during the decade was \$138,483,732, represented by 90,758 mortgages, and distributed by years as follows:

MORTGAGE DEBT INCURRED IN THE DECADE,  
1880 TO 1890.

YEARS.	TOTAL.		ON ACRES.		ON LOTS.		No. of Acres Mortgaged.	No. of Lots Mortgaged.
	No.	Am't.	No.	Am't.	No.	Am't.		
The State,	90,758	\$138,483,732	23,069	\$26,955,786	67,689	\$111,527,946	838,956	59,649
1880.	7,113	9,196,506	2,346	2,499,841	4,767	6,696,665	81,046	4,505
1881.	7,952	13,059,785	2,338	2,517,845	5,614	10,541,940	88,381	4,833
1882.	8,572	12,827,086	2,343	2,661,630	6,229	10,165,456	88,671	5,301
1883.	8,873	14,110,704	2,214	2,509,758	6,659	11,600,946	82,840	5,643
1884.	8,950	13,003,601	2,352	2,540,788	6,598	10,462,813	87,426	5,540
1885.	9,311	14,059,501	2,432	3,142,121	6,879	10,917,380	89,112	5,754
1886.	9,151	14,274,930	2,331	2,909,804	6,820	11,365,126	81,440	7,319
1887.	9,505	14,698,425	2,345	3,033,079	7,160	11,665,346	74,969	6,008
1888.	10,041	15,549,869	2,102	2,534,372	7,939	13,015,497	83,344	6,945
1889.	11,290	17,703,325	2,266	2,606,548	9,024	15,096,777	81,727	7,801

BULK OF THE INCREASE INCURRED ON LOTS.

The increase of 92.50 per cent. in the yearly incurred debt during the decade was much larger than the per cent. increase in population or the per cent. increase in real estate valuation. The increase was most marked between 1880 and 1881 and between 1888 and 1889. It was almost entirely confined to the debt on lots. The number of acres mortgaged in 1889 was almost the same as it was in 1880, while the number of acre mortgages made in 1889 was less than in 1880. The debt incurred on acre tracts rose from \$2,499,841 in 1880 to \$3,142,121 in 1885, and declined to \$2,606,548 in 1889. But the increase in the debt incurred on lots in the ten years was 125.44 per cent., while the number of recorded mortgages on lots increased from 4,505 in 1880 to 7,801 in 1889. Of the total debt incurred during the ten years, 19.46 per cent. was on acre tracts and 80.54 per cent. on lots.

DEBT INCURRED TO OBTAIN HOMES.

The bulk of the debt incurred was in the towns and cities, and the greater part of it was incurred presumptively in the erection or purchase of homes. During the ten years 30.99 per cent. of the number of mortgages was made for amounts less than \$500, 22.59



per cent. for amounts of \$500 and under \$1,000, 41.06 per cent. for amounts of \$1,000 and under \$5,000, and 5.36 per cent. for amounts of \$5,000 and over. The variation in the amount of loans by years may be thus tabulated :

NUMBER OF MORTGAGES CLASSIFIED BY AMOUNTS,  
BY YEARS.

YEARS.	Under \$500.	\$500 and under \$1,000.	\$1,000 and under \$1,500.	\$1,500 and under \$2,000.	\$2,000 and under \$2,500.	\$2,500 and under \$5,000.	\$5,000 and over.
1880.	2,467	1,789	1,081	502	364	605	305
1881.	2,539	1,845	1,187	590	498	802	491
1882.	2,715	1,979	1,375	683	528	824	468
1883.	2,872	1,921	1,406	689	610	917	458
1884.	2,832	2,078	1,368	691	579	939	463
1885.	2,885	2,138	1,459	749	614	974	492
1886.	2,820	1,960	1,426	770	637	1,046	492
1887.	2,821	2,118	1,524	837	596	1,070	539
1888.	2,888	2,148	1,709	858	740	1,162	536
1889.	3,288	2,527	1,886	980	753	1,234	622

INCREASED ABILITY TO ASSUME OBLIGATIONS.

During the decade the number of loans for amounts less than \$1,000 decreased relatively, while the number of loans for amounts of \$1,000 and under \$5,000 increased relatively. On the reasonable assumption that the larger number of the debts was incurred in the procurement of homes, it may be argued from this variation in the size of loans that there was an increased ability to assume obligations, both in the amount of security pledged and in the financial outlook of the mortgagers, and that an improved class of homes was secured. This variation in the amount of recorded loans, between 1880 and 1889, may be interestingly shown in this tabular form :

## VARIATION IN AMOUNTS OF LOANS, 1880 TO 1889.

AMOUNTS.	PER CENT. OF THE WHOLE NUMBER.	
	In 1880.	In 1889.
Under \$100, . . . . .	3.09	2.22
\$100 and under \$200, . . . . .	8.81	7.18
\$200 and under \$300, . . . . .	9.25	8.14
\$300 and under \$400, . . . . .	7.58	6.71
\$400 and under \$500, . . . . .	5.95	4.86
\$500 and under \$1,000, . . . . .	25.15	22.38
\$1,000 and under \$1,500, . . . . .	15.20	16.71
\$1,500 and under \$2,000, . . . . .	7.06	8.68
\$2,000 and under \$2,500, . . . . .	5.12	6.67
\$2,500 and under \$5,000, . . . . .	8.51	10.93

Mortgages involving loans of \$500 and under \$5,000 represented 61.03 per cent. of the total number recorded in 1880 and 65.37 per cent. in 1889, while the number of mortgages for amounts less than \$500 decreased from 34.68 per cent. of the total in 1880 to 29.12 per cent. in 1889.

## DECREASED INTEREST RATES.

The average rate of interest on the mortgage debt existing January 1, 1890, was reported by the Census Bureau to be 5.64 per cent.; on acres, 5.70 per cent.; on lots, 5.63 per cent. From 1880 to 1889 the rate on the incurred debt declined from 5.91 to 5.54 per cent. for all mortgages; for mortgages on acres, from 5.90 to 5.72 per cent.; for mortgages on lots, from 5.91 to 5.51 per cent. The average interest on lot mortgages was higher than the average on acre mortgages in 1880, but lower in 1889. The principal rate of interest in Connecticut during the ten years period was 6 per cent., the amount of debt incurred at that rate being 68.89 per cent. of the total; under 6 per cent., 30.76 per cent. of the total; over 6 per cent., 0.35 of 1 per cent. of the total; over 8 per cent., 0.01 of 1 per cent. of the total. The highest rate at which debt was incurred was 12 per cent. on \$300 in 1886 and on \$1,000 in 1887. The debt incurred in the State during the decade bore seventeen different rates of interest, and, besides this, \$219,102, more than

one-half of which was incurred in 1886, was not subject to any interest.

During the decade the interest movement was in the direction of lower rates, an evidence of better security as well as of an easier money market. This movement is graphically illustrated by this tabular presentation of the percentage of the total debt incurred annually at rates of interest between 4 and 7 per cent.:

PER CENT. OF YEARLY INCURRED DEBTS AT DIFFERENT INTEREST RATES.

YEARS.	At 4 Per cent.	At 4½ Per cent.	At 5 Per cent.	At 5½ Per cent.	At 6 Per cent.	At 7 Per cent.
In 1880, . . .	.34	.04	8.51	.79	88.86	1.30
In 1881, . . .	.36	.08	21.76	1.45	75.78	.41
In 1882, . . .	.44	.25	20.84	1.10	76.75	.32
In 1883, . . .	.28	.06	23.39	1.78	74.14	.16
In 1884, . . .	.49	.09	21.03	1.36	76.70	.24
In 1885, . . .	.32	.11	25.85	2.26	70.45	.72
In 1886, . . .	1.30	1.94	33.78	1.31	60.72	.45
In 1887, . . .	.73	.95	34.52	1.35	62.19	.10
In 1888, . . .	.60	.75	35.32	.91	62.09	.14
In 1889, . . .	.69	1.37	42.09	.91	54.70	.11

The most pronounced variation in the per cent. of amounts placed at the different interest rates (increased for the lower and decreased for the higher rates) was between 1880 and 1881, between 1885 and 1886, and between 1888 and 1889. In 1881 and 1889 there was also the most pronounced increase in the amount of debt incurred.

#### OBJECTS OF INDEBTEDNESS.

The Census Bureau statement in relation to mortgage indebtedness divides the families of the State into farm and home families. There are 26,439 farm families in Connecticut. Twenty-one thousand, seven hundred and sixty-five of these own their farms and 4,674 hire them. Of the owning families, 6,769, or 31.10 per cent., have incumbrances on their farms. Investigation of the reasons for incurring indebtedness discloses the fact that the greater part of the proceeds of mortgages was devoted to the purchase of real estate and the making of real estate improvements.

Eighty per cent. of the debt on farms was contracted for this purpose by 80.02 per cent. of the farm debtor families; 86.82 per cent of the farm debtor families devoted 88.32 per cent. of the total debt to purchasing and improving real estate, business, and the purchase of personal property, when not complicated with other objects. The balance is represented by 5.07 per cent. of the families and 2.73 per cent. of the farm debt. The amount of the mortgages secured by this comparatively small group was expended for farm and family expenses, and is the only portion of the money gained by liens on farm security which can be regarded as a retrograde movement.

These classifications are then applied to home families. By homes is meant property owned by families, not classed as farms, principally in the larger places, on which there is a mortgage indebtedness. There are 21,749 such families in the State in a total of 47,210 in which the title of their homes vests. Thus 46.07 per cent. of the owning families have encumbrances upon their property; 83.55 per cent. of these families incurred 81.96 per cent. of their debt for the purchase of real estate and making real estate improvements; 91.42 per cent. of the home debtor families expended 93.87 per cent. of the proceeds of mortgages for real estate purchase and improvements, business, and the purchase of personal property, when not complicated with other objects, and 4.25 per cent. of the families incurred 2.09 per cent. of the debt for family expenses. This latter amount can be said to represent the expenditure for which there is nothing to show.

#### OWNERSHIP AND DEBT.

A statement of the facts in relation to the ownership of homes and farms cannot but be interesting to those who are interested in the welfare of the State. It is universally admitted that ownership of land does much to conserve good citizenship, and that efforts to secure homes should always be encouraged. The movement in this direction, often by newcomers to the country, and chiefly in the manufacturing centers, is a pleasant one to contemplate. The desire to secure a bit of land and erect a home on it, among these people, debarred, as many of them have been, from any ownership of real estate in their native countries, is one that cannot be encouraged too much. This tendency more than any other disproves the pessimistic theories in regard to these people, and gives much reason for the hope that we will rapidly assimilate them. There

are other reasons for this belief, but the eagerness to secure homes, and the sacrifices made to pay for them, is the best index to what time will do for our foreign population.

For the purpose of conducting the investigation into the ownership of homes and the amount of indebtedness incurred, every family in the State "is regarded as occupying a farm, or a home not a farm, and as hiring such farm or home, or as owning it either free of incumbrance or mortgaged." The inquiry shows that there are 165,890 families in Connecticut. Of these 96,915, or 58.42 per cent. of the total, hire their farms or homes, and 68,975, or 41.58 per cent., own them. Of the owning families, 28,518, or 41.35 per cent., are subject to mortgages, while 40,457, or 58.65 per cent., are free from incumbrance. More than half of the homes in Connecticut, as will be noted by these figures, are free from debt.

A further subdivision shows that there are 26,439 families occupying farms in this State, or 15.94 per cent. of the total number of families. Of these, 21,765, or 82.32 per cent., own the farms they cultivate, and 4,674, or 17.68 per cent., hire the land on which they live. Of the owning families, 6,769, or 31.10 per cent., are subject to liens on their property, while 14,996, or 68.90 per cent., own free of incumbrance. Thus, in Connecticut, the average 100 farm families are composed as follows: 56.72 that have no mortgage debt, 25.60 that pay interest on borrowed money, and 17.68 that rent their farms. No data exists with which these figures can be compared accurately. In 1880 10.22 per cent. of the farms were hired, showing an apparent relative increase, but the figures for 1880 represent farms, while those for 1890 stand for farm families. This difference renders an accurate comparison impossible, although the difference would lead to the assumption that the number living on rented farms had increased during the decade.

The home families in the State number 139,451, or 84.06 per cent. of the total. A division into classes develops the following conditions: Those who hire number 92,241, or 66.15 per cent. of all, and 47,210, or 33.85 per cent., own their homes. Of those who own, 25,461, or 53.93 per cent., have no incumbrance, while 21,794, or 46.07 per cent., are subject to mortgages. Therefore, in 100 home families, on the average, 66.15 hire, 18.26 own free, and 15.59 are possessed of the equity in their property only.

The difference between the percentage of farms owned free and homes owned free of debt indicates, in part, the force of the movement in the larger places toward securing homes by those who



cannot pay for them in full. They are compelled to borrow in order to secure what they so much desire, and this explains why the presence of material prosperity in a town is usually accompanied by an increase of the percentage of incumbered property. These facts are set forth fully in the following table, which divides, giving totals and percentages, the whole number of families in the State, the home families and the farm families, into the classes to which reference has been made.

FAMILIES HIRING, OWNING AND MORTGAGED.

	Number of Families.	Owning.	Free.	Incum- bered.	Hiring.	Average Incum- brance.
In the State, .	165,890	68,975	40,457	28,518	96,915	\$1,592
Per cent., .	....	41.58	58.65	41.35	58.42	....
Home Families,	139,451	47,210	25,461	21,749	92,241	1,694
Per cent., .	84.06	33.85	53.93	46.07	66.15	....
Farm Families,	26,439	21,765	14,996	6,769	4,674	1,266
Per cent., .	15.94	82.32	68.90	31.10	17.68	....

HOMES IN THE LARGER TOWNS.

For the purposes of comparison the facts in relation to the ownership and incumbrance on homes in seventeen cities and towns having a population of 8,000 to 100,000 are presented. The list embraces the seventeen largest places in the State. These show a still larger percentage of incumbered homes than the class from which they are taken, and again substantiates the general deductions hitherto spoken of. Homes are hired in cities to a much greater extent than in the smaller places. In these seventeen cities and towns there are 81,253 families, or almost one-half the total number of families in the State. Of these 57,932, or 71.30 per cent., hire, and 23,321, or 28.70 per cent., own their homes. Of the number owning, 11,990, or 51.41 per cent., are liable for mortgages, while 11,331 families, or 48.59 per cent., have no debt upon their homes. On the average, in 100 of these city home families, 71.30 hire, 14.76 own with incumbrance, and 13.94 own without incumbrance. The largest percentage hiring their homes is in Hartford, the figures showing that 80.06 per cent. of the families in that city rent. Bridgeport is second with a percentage of 75.52.

The smallest percentage is that for Greenwich, 53.01, and the next is Norwalk, 59.77. In New Britain 65.04 per cent. of the owning families own encumbered homes, and this is the largest percentage. Meriden comes next with 60.39 per cent. The smallest percentage is 39.45 for New London, and next to this is 41.57 for Willimantic. The figures in detail are as follows:

NUMBER OF FAMILIES OCCUPYING OWNED AND HIRED AND  
FREE AND INCUMBERED HOMES.

TOWNS.	Aggregate.	OWNING.			Hiring.
		Total.	Free.	Incumbered.	
Ansonia, . . . . .	2,116	695	311	384	1,421
Bridgeport, . . . . .	10,411	2,549	1,285	1,264	7,862
Danbury, . . . . .	3,823	1,397	571	826	2,426
Greenwich, . . . . .	1,679	789	451	338	890
Hartford, . . . . .	11,502	2,293	1,096	1,197	9,209
Manchester, . . . . .	1,563	436	220	216	1,127
Meriden, . . . . .	4,585	1,323	524	799	3,262
Middletown, . . . . .	1,510	597	324	273	913
New Britain, . . . . .	3,490	1,064	372	692	2,426
New Haven, . . . . .	17,358	4,635	2,321	2,314	12,723
New London, . . . . .	3,056	1,024	620	404	2,032
Norwalk, . . . . .	4,014	1,615	815	800	2,399
Norwich, . . . . .	3,632	1,196	636	560	2,436
Stamford, . . . . .	3,109	1,106	569	537	2,003
Vernon, . . . . .	1,827	582	292	290	1,245
Waterbury, . . . . .	5,816	1,575	664	911	4,241
Willimantic, . . . . .	1,762	445	260	185	1,317
Total, . . . . .	81,253	23,321	11,331	11,990	57,932

PERCENTAGE OF FAMILIES OCCUPYING OWNED AND HIRED  
AND FREE AND INCUMBERED HOMES.

TOWNS.	PERCENTAGE OF FAMILIES OWNING AND HIRING.		PERCENTAGE OF FAMILIES OWNING FREE AND INCUMBERED OF TOTAL OWNING FAMILIES.		PERCENTAGE OF FAMILIES OWNING FREE AND INCUM- BERED OF TOTAL OWNING AND HIRING FAMILIES.	
	Owning.	Hiring.	Free.	Incum- bered.	Free.	Incum- bered.
Ansonia, . .	32.84	67.16	44.75	55.25	14.70	18.14
Bridgeport, .	24.48	75.52	50.41	49.59	12.34	12.14
Danbury, . .	36.54	63.46	40.87	59.13	14.93	21.61
Greenwich, .	46.99	53.01	57.16	42.84	26.86	20.13
Hartford, . .	19.94	80.06	47.80	52.20	9.53	10.41
Manchester, .	27.90	72.10	50.46	49.54	14.08	13.82
Meriden, . .	28.85	71.15	39.61	60.39	11.43	17.42
Middletown, .	39.54	60.46	54.27	45.73	21.46	18.08
New Britain, .	30.49	69.51	34.96	65.04	10.66	19.83
New Haven, .	26.70	73.30	50.08	49.92	13.37	13.33
New London, .	33.51	66.49	60.55	39.45	20.29	13.22
Norwalk, . .	40.23	59.77	50.46	49.54	20.30	19.93
Norwich, . .	32.93	67.07	53.18	46.82	17.51	15.42
Stamford, . .	35.57	64.43	51.45	48.55	18.30	17.27
Vernon, . . .	31.86	68.14	50.17	49.83	15.98	15.88
Waterbury, .	27.08	72.92	42.16	57.84	11.42	15.66
Willimantic, .	25.26	74.74	58.43	41.57	14.76	10.50
Average, . .	28.70	71.30	48.59	51.41	13.94	14.76

A comparison of the figures for the whole State shows that the percentage of those who hire is greatest in the seventeen cities alluded to in the above tables. The condition of the average 100 families in the various classes is shown by the following table:

CONDITION OF THE AVERAGE 100 FAMILIES BY GROUPS.

CLASSIFICATION.	Proportion Hiring.	PROPORTION OWNING.	
		Free.	Incumbered.
Farm Families, . . . . .	17.68	56.72	25.60
Home Families, . . . . .	66.15	18.26	15.59
Home Families in Seventeen Cities. . . . .	71.30	13.94	14.76
Remainder of Home Families, . . . . .	58.95	24.28	16.77

## VALUE OF FARMS AND HOMES AND INCUMBRANCE.

On the 28,518 mortgaged farms and homes in the State there are liens amounting to \$45,402,845. Of this amount, \$8,567,786 is on 6,769 farms, and \$36,835,059 is on 21,749 homes. In the seventeen cities and towns mentioned there are 11,990 incumbered homes, on which the total debt is \$25,621,524. These homes are estimated to be worth \$58,787,706, so that the debt is 43.58 per cent. of the value. On the homes outside of the seventeen cities the debt is 42.15 per cent. of the value. The average incumbrance throughout the State is as follows: On farms, \$1,266; on homes, \$1,694, and on homes in the seventeen cities, \$2,137. The highest average value of homes is found in Hartford county, where it is put at \$4,404, while the lowest is \$2,429, in Middlesex county.

VALUE OF INCUMBERED FARMS AND HOMES, AMOUNT OF INCUMBRANCE, AND INTEREST CHARGES.

CIVIL DIVISIONS.	Number of Families Owning with Incumbrance.	Value.	Incumbrance.
The State, . . . . .	25,518	\$106,474,796	\$45,402,845
For Farms, . . . . .	6,769	21,084,559	8,567,786
For Homes, . . . . .	21,749	85,390,237	36,835,059
Seventeen Cities, . . . . .	11,990	58,787,706	25,621,524
Ansonia, . . . . .	384	1,350,129	588,122
Bridgeport, . . . . .	1,264	7,160,730	2,925,836
Danbury, . . . . .	826	3,711,399	1,470,983
Greenwich, . . . . .	338	1,307,937	510,134
Hartford, . . . . .	1,197	8,304,216	3,868,185
Manchester, . . . . .	216	690,423	226,010
Meriden, . . . . .	799	3,615,962	1,632,713
Middletown, . . . . .	273	1,039,060	448,711
New Britain, . . . . .	692	3,288,653	1,544,337
New Haven, . . . . .	2,314	11,711,745	5,347,972
New London, . . . . .	404	1,832,060	703,735
Norwalk, . . . . .	800	3,230,221	1,323,641
Norwich, . . . . .	560	2,175,527	930,378
Stamford, . . . . .	537	2,734,908	1,218,612
Vernon, . . . . .	290	965,109	406,450
Waterbury, . . . . .	911	4,868,100	2,127,551
Willimantic, . . . . .	185	801,527	348,154
Rest of State, . . . . .	9,759	26,602,531	11,213,535



VALUE OF INCUMBERED FARMS AND HOMES, AMOUNT OF INCUMBRANCE, AND INTEREST CHARGES.—CONCLUDED.

CIVIL DIVISIONS.	Percentage of Incumbrance of Value.	Total Annual Inter- est Charge.	Average Annual Inter- est Charge.	Average Annual Rate of Interest.
The State, . . . .	42.64	\$2,485,099	\$87	5.47
For Farms, . . . .	40.64	477,009	70	5.57
For Homes, . . . .	43.14	2,008,090	92	5.45
Seventeen Cities, . .	43.58	1,373,382	115	5.38
Ansonia, . . . .	43.56	31,217	81	5.31
Bridgeport, . . . .	40.86	155,528	123	5.32
Danbury, . . . .	39.63	79,346	96	5.39
Greenwich, . . . .	39.00	27,861	82	5.46
Hartford, . . . .	46.58	208,726	174	5.40
Manchester, . . . .	32.74	12,413	57	5.49
Meriden, . . . .	45.15	87,249	109	5.34
Middletown, . . . .	43.18	24,492	90	5.46
New Britain, . . . .	46.96	82,001	118	5.31
New Haven, . . . .	45.66	281,366	122	5.26
New London, . . . .	38.41	38,491	95	5.47
Norwalk, . . . .	40.98	72,815	91	5.50
Norwich, . . . .	42.77	49,495	88	5.32
Stamford, . . . .	44.56	65,347	122	5.36
Vernon, . . . .	42.11	22,585	78	5.56
Waterbury, . . . .	43.70	120,905	133	5.68
Willimantic, . . . .	43.44	18,545	100	5.33
Rest of State, . . .	42.15	629,708	65	5.62

## RATES OF INTEREST PAID.

When the number of mortgages on homes and farms in the State is considered, 6 per cent. is the chief rate of interest. There is, however, more money loaned at 5 than at 6, the figures showing that \$20,642,617 is drawing 5 per cent., while \$20,135,093 is invested at 6 per cent. Rates that are less than 6 per cent. are paid by 35.21 per cent. of the farm families on 43.73 per cent. of their debt; by 44.09 per cent. of the home families on 57.31 per cent. of their debt, and by 53.52 per cent. of the city families on 64.73 per cent. of their debt.

Rates higher than 6 per cent. are paid by 1.09 per cent. of the farm families, 0.88 of 1 per cent. of the home families, and 0.78 of 1 per cent. of the families in the seventeen cities.

The total interest charge for one year is \$2,485,099. Of this amount \$477,009 is paid on the debt incumbering farms, while \$2,008,090 is required to meet the charges on home mortgages.

On farm loans the average rate of interest is 5.57 per cent.; on home loans, 5.45 per cent.; on home loans in the seventeen cities and towns, 5.38 per cent.

Thus we see that where the percentage of incumbrance to value is least the rate of interest is the highest. The farm families, while offering greater security, pay a larger percentage for the use of money. This may in part be attributed to distance from the money centers, and the fact that banks regard loans upon improved city property with more favor. They are inclined to lend a greater ratio upon such property than upon farms, simply because there is a quicker market for its sale if the mortgagees are compelled to take it. In the preceding table we discover that in New Britain the highest percentage of incumbrance exists. The figures for that city are 46.96 per cent., with Hartford second at 46.58 per cent. Yet in New Britain the average rate of interest is 5.31 per cent., but one city in the State, New Haven, showing a lower average, the percentage there being 5.26. In Manchester the percentage of incumbrance is the lowest, 32.74 per cent., but the average rate of interest is 5.49 per cent., quite a little higher than the average of the seventeen cities. In Waterbury the average rate of interest is 5.68 per cent., which is the highest among the cities of the State and exceeds the average rate paid on farm mortgages. The following table gives the incumbrance by rates of interest in detail:

# NUMBER OF INCUMBERED FAMILIES AND AMOUNT OF MORTGAGES, BY RATES OF INTEREST.

[Mixed numbers represent intermediate rates. For instance, "1-2" includes all rates greater than one and less than two.]

Per ct.	THE STATE.						FOR HOMES IN CITIES OF 8,000 TO 100,000 PEOPLE.	
	Total.		For Farms.		For Homes.			
	Number of Families	Incum- brance..	Number of Families	Incum- brance.	Number of Families	Incum- brance.	No. of Fam- ilies.	Incum- brance.
	28,518	\$45,402,845	6,769	\$8,567,786	21,749	\$36,835,059	11,990	\$25,621,524
0	69	88,551	26	31,776	43	56,775	13	29,521
1	1	1,000	1	1,000	....	....	....	....
1-2	3	9,000	2	8,200	1	800	1	800
2-3	9	16,935	2	2,800	7	14,135	3	4,835
3	13	13,638	4	3,100	9	10,538	4	3,870
3-4	16	26,832	5	4,384	11	22,448	4	15,600
4	227	404,893	93	169,012	134	235,881	71	159,587
4-5	103	319,946	37	58,150	66	261,796	44	211,386
5	10,243	20,642,617	1,867	2,816,386	8,376	17,826,231	5,720	14,239,550
5-6	1,287	3,333,716	346	652,086	941	2,681,630	557	1,920,893
6	16,280	20,135,093	4,312	4,702,545	11,968	15,432,548	5,479	8,851,045
6-7	91	201,423	26	56,454	65	144,969	30	88,447
7	124	130,310	38	41,640	86	88,670	42	52,113
7-8	10	13,908	3	10,480	7	8,428	5	7,678
8	21	42,800	3	5,876	18	36,924	11	29,974
8-9	2	2,700	....	....	2	2,700	....	....
9	1	300	....	....	1	300	....	....
10	13	8,658	1	150	12	8,508	5	5,900
10-11	1	1,247	1	1,247	....	....	....	...
12	1	325	....	....	1	325	1	325
14	1	1,500	1	1,500	....	....	....	....
15	1	1,000	1	1,000	....	....	....	....
20	1	1,453	....	....	1	1,453	....	....

## WAGES ON THE FARM.

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Nine statistical inquiries into the subject of the wages of farm laborers, covering a period of twenty-six years, from 1866 to 1892, have been conducted by Prof. J. R. Dodge, until recently the statistician of the United States Department of Agriculture. The result, with also some data regarding farm wages prior to 1886, is printed in No. 4 of the Miscellaneous Series Reports of the Division of Statistics of the Department of Agriculture. Some facts of special interest in Connecticut have been culled from that report.

When the inquiry was begun, labor was in demand to repair the wastes of war, and the average rate of wages for farm labor was high. A sharp decline followed between 1869 and 1875, the monetary revulsion in 1873 reducing consumption, and forcing many former factory operatives into competition with farm labor. The lowest level was found in 1879. Within the next succeeding five years farm wages rose to a normal level, which was maintained with notable uniformity during the ten years ending in 1892; the depression in agriculture, about which so much has been written, not being attended by a decline in the rate of compensation paid for labor.

Farm wages are highest in the Pacific Coast States. The Mountain States hold second place. East of the mountains the highest rates are in the Eastern States, which include New England and New York. In the Middle States they are about 10 per cent. less, and in the Western States there is a further reduction of about 4 per cent. The agricultural labor of New England is dear because of its scarcity.

The report continues :

"Not only are striking differences shown to exist in groups of States, and greater still in individual State averages, but in every state there is variation in its county rates, due to the same causes which operate to differentiate the wages of geographical sections. One of these causes is density of population, as in the neighborhood

of cities, which results in high rents and dear food, and wages corresponding. In such vicinage, demand for skilled labor in gardening and fruit-growing, as well as in general farming, is stimulated by the necessity for large supplies, and the relatively high range of prices which they command, producing a competition which raises wages. In a county, or a portion of a State, marked by high intelligence and general education of its people, farm wages are high, because more in demand for a greater variety of production, and the service is more effective and more valuable. In other counties, distant from market, with scant railway facilities, and especially with poor roads to railway stations, demand for labor is less, and the products of labor are less valuable. As a natural result, in such locality there is less skill and ambition among workers, the more progressive will seek better conditions, and wages are consequently low because of less intrinsic value, of depreciation in quality."

Wages (without board) per month, by the year or season, in the Eastern States, were found to be :

#### WAGES PER MONTH, WITHOUT BOARD, IN THE EASTERN STATES.

STATES.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Maine, . . .	\$24.50	\$25.00	\$24.64	\$23.09	\$24.75	\$18.25	\$25.40	\$26.25	\$27.00
N. Hampshire,	25.00	25.15	24.38	22.80	25.25	19.75	28.57	32.66	32.74
Vermont, . .	24.67	24.80	23.25	23.00	23.37	19.00	29.67	32.40	32.84
Massachusetts,	29.70	30.00	29.50	28.75	30.66	25.00	31.87	35.95	38.94
Rhode Island,	29.00	29.20	27.75	28.50	27.75	23.00	30.00	32.25	34.40
Connecticut, .	27.38	27.00	27.40	27.67	27.90	23.29	28.25	33.00	34.25
New York, . .	24.55	24.45	24.13	24.00	23.63	20.61	27.14	29.28	29.57

For the purposes of comparison, the wages per month, without board, by grand divisions of the country, are given :

#### WAGES PER MONTH, WITHOUT BOARD, BY GROUPS OF STATES.

SECTIONS.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Eastern States,	\$26.46	\$26.64	\$26.03	\$25.30	\$26.55	\$21.36	\$29.00	\$32.03	\$33.31
Middle States,	23.83	23.62	23.11	23.19	23.21	20.24	26.99	29.19	29.83
South'n States,	14.86	14.77	14.54	14.27	14.67	12.65	15.28	16.49	16.63
Western States,	22.61	22.01	22.23	22.27	23.26	19.81	23.25	26.39	27.84
Mount'n States,	32.16	31.94	33.37	30.24	36.50	....	....	....	27.23
Pacific States,	36.15	34.87	36.73	37.78	37.22	40.11	43.50	46.38	44.60
Average, . .	18.60	18.34	18.24	18.06	18.58	16.05	19.49	25.92	26.87



The monthly average in Connecticut was less than that in Massachusetts and in Rhode Island, but more than the average in the other States in the Eastern group. It was also higher than the average for the Eastern group, as also higher than the average in the Middle or the Western or the Southern group, but lower than in the Mountain and Pacific States.

In the decline between 1875 and 1879, the average fell less in Connecticut than in any other of the Eastern States; while in the general rise between 1879 and 1882, the monthly increase in Connecticut was less than in Maine, New Hampshire, Massachusetts or Rhode Island.

As stated previously, the five inquiries conducted during the decade ending in 1892, showed a notable uniformity in the monthly average. But such slight tendency as was found was towards a lower average in Connecticut, as also in Maine, in New Hampshire, and in Massachusetts, and to a higher average in Vermont, in Rhode Island, and in New York.

#### WAGES PER MONTH, WITH BOARD, IN THE EASTERN STATES.

STATES.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Maine, . . .	\$17.00	\$17.50	\$17.20	\$16.00	\$16.15	\$11.08	\$15.94	\$16.50	\$17.44
N. Hampshire,	17.50	17.60	17.00	15.75	16.72	12.30	18.25	22.16	22.48
Vermont, . .	17.45	17.35	16.40	16.20	16.00	11.50	19.37	21.40	21.00
Massachusetts,	18.00	18.50	18.00	17.85	18.25	15.33	20.25	22.16	22.36
Rhode Island,	17.75	18.00	17.50	17.70	17.00	13.25	19.00	20.00	20.50
Connecticut, .	17.50	17.33	17.17	17.20	17.37	14.23	18.50	20.75	21.54
New York, . .	16.50	16.65	16.30	16.52	15.36	13.19	17.80	18.64	19.32

#### WAGES PER MONTH, WITH BOARD, BY GROUPS OF STATES.

SECTIONS.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Eastern States,	\$17.50	\$17.71	\$17.21	\$16.70	\$16.92	\$13.03	\$18.59	\$20.44	\$20.82
Middle States,	15.78	15.61	15.41	15.24	14.71	12.37	16.98	18.37	19.01
South'n States,	10.02	10.10	9.90	9.90	9.92	8.46	9.94	10.55	10.75
West'rn States,	15.36	15.00	15.09	15.20	15.60	12.75	15.44	17.04	18.48
Mount'n States,	21.28	20.64	21.99	19.74	27.08	....	....	....	17.61
Pacific States,	24.25	22.50	25.08	24.37	23.73	25.88	28.13	28.69	29.48
Average, . .	12.54	12.45	12.36	12.34	12.41	10.43	12.72	16.55	17.45

These tables present a narrower range of differences than the others, in which was included the cost of board, the price of which was proportionately high in the early days of abnormal prices. The difference between wages with and without board stands practically for the cost of board, and represents variation in prices of products consumed and in the average rations in the several States or groups of States. Comparing these equivalents for board in the nine inquiries, the statement is as follows :

COST OF BOARD PER MONTH, IN THE EASTERN STATES.

STATES.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Maine, . .	\$7.50	\$7.50	\$7.44	\$7.09	\$8.60	\$7.17	\$9.46	\$9.75	\$9.56
N. Hampshire,	7.50	7.55	7.38	7.05	8.53	7.45	10.32	10.50	10.26
Vermont, .	7.22	7.45	6.85	6.80	7.37	7.50	10.30	11.00	11.84
Massachusetts,	11.70	11.50	11.50	10.90	12.41	9.67	11.62	13.79	16.58
Rhode Island,	11.25	11.20	10.25	10.80	10.75	9.75	11.00	12.25	13.90
Connecticut, .	9.88	9.67	10.23	10.47	10.53	9.06	9.75	12.25	12.71
New York, .	8.05	7.80	7.83	7.48	8.27	7.42	9.34	10.64	10.25

COST OF BOARD PER MONTH, BY GROUPS OF STATES.

SECTIONS.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Eastern States,	\$8.96	\$8.93	\$8.82	\$8.60	\$9.63	\$8.33	\$10.41	\$11.59	\$12.49
Middle States,	8.05	8.01	7.70	7.95	8.50	7.87	10.01	10.82	10.82
South'n States,	4.84	4.67	4.64	4.37	4.75	4.19	5.34	5.94	5.88
West'rn States,	7.25	7.01	7.14	7.07	7.66	7.06	7.81	9.35	9.36
Mount'n States,	10.88	11.30	11.38	10.50	9.42	....	....	....	9.82
Pacific States,	11.90	12.37	11.65	13.41	13.49	14.23	15.37	17.69	15.12

These figures direct attention to the higher cost of board in the earlier period. Then wages were high, products correspondingly dear, and necessarily the cost of board was greater. In all the years of inquiry there was much difference in cost, in a comparison of States or of groups of States. The board allowance in each year was highest on the Pacific coast. East of the mountains it is greatest in the New England States, which buy from the West a considerable portion of their food supply. The Middle States, with less dependence on the West, afford farm board at a somewhat cheaper rate. In the Western States, where food products are cheaper, the board allowance is lower. The still lower cost in the South is in

part ascribed to the elimination of domestic service, rations and dwelling being furnished to the farm hands, who otherwise furnish their bed and board. In the New England States the board allowance is the highest in Massachusetts and Rhode Island, Connecticut being next in rank, and Vermont reporting the lowest cost.

## DAY WAGES IN HARVEST, WITHOUT BOARD.

STATES.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Maine, . .	\$1.72	\$1.70	\$1.65	\$1.58	\$1.52	\$1.42	\$1.99	\$2.17	\$2.02
N. Hampshire,	1.68	1.72	1.67	1.65	1.71	1.25	2.06	2.37	1.98
Vermont, .	1.70	1.68	1.65	1.68	1.75	1.29	2.28	2.46	2.32
Massachusetts,	1.75	1.80	1.80	1.70	1.75	1.50	1.90	2.37	2.41
Rhode Island,	1.72	1.75	1.75	1.60	1.60	1.30	2.00	2.37	2.23
Connecticut, .	1.75	1.70	1.70	1.65	1.65	1.60	2.06	2.40	2.43
New York, .	1.80	1.80	1.80	2.00	1.89	1.53	2.25	2.53	2.41

The difference between the early and the recent average is much greater in harvest wages than in the monthly wages. The average decline in harvest wages from 1866 to 1892 was 41 per cent., while in monthly wages it was 31 per cent. The decline to present level was reached much earlier in monthly wages than in harvest wages. Harvest wages have been quite uniform in the New England States in recent years, none of the reports since 1885 varying much from an average of \$1.72 per day.

## DAY WAGES IN HARVEST, WITH BOARD.

STATES.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Maine, . .	\$1.32	\$1.35	\$1.30	\$1.19	\$1.22	\$1.09	\$1.49	\$1.65	\$1.56
N. Hampshire,	1.29	1.38	1.37	1.32	1.35	.96	1.64	1.95	1.52
Vermont, .	1.33	1.37	1.35	1.30	1.35	.97	1.85	2.00	1.85
Massachusetts,	1.30	1.38	1.38	1.31	1.35	1.00	1.50	1.95	1.92
Rhode Island,	1.28	1.35	1.35	1.25	1.30	.95	1.50	1.75	1.71
Connecticut, .	1.38	1.38	1.40	1.33	1.33	1.25	1.53	1.90	1.90
New York, .	1.40	1.38	1.37	1.54	1.47	1.18	1.75	1.99	1.92

The difference between the rates with and without board is less in harvest wages than in wages by the year. The need is urgent, and the domestic service in furnishing board is less considered. The 1892 rate with board was less than the rate without board by

22 per cent., but in the record of monthly wages it was 33 per cent. The money consideration, in harvest wages with board, was a trifle higher in Connecticut than in the other New England States.

#### ORDINARY DAY WAGES, WITHOUT BOARD.

STATES.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Maine, . .	\$1.28	\$1.30	\$1.25	\$1.19	\$1.18	\$.97	\$1.46	\$1.48	\$1.19
N. Hampshire,	1.28	1.35	1.27	1.30	1.30	.98	1.50	1.79	1.67
Vermont, .	1.23	1.19	1.16	1.15	1.20	.91	1.51	1.76	1.76
Massachusetts,	1.42	1.45	1.42	1.50	1.45	1.05	1.44	1.92	1.83
Rhode Island,	1.42	1.45	1.42	1.25	1.28	1.00	1.62	1.73	1.83
Connecticut, .	1.38	1.37	1.33	1.32	1.30	1.50	1.50	1.87	1.75
New York, .	1.22	1.23	1.21	1.26	1.29	.92	1.48	1.64	1.75

The average for the country was 92 cents per day in 1892, which was 29 per cent. less than average harvest wages. The average for the Eastern States in 1892 was \$1.32. The rate in Connecticut was above the average, and only a trifle lower than the rates in Massachusetts and Rhode Island. It is notable that in the year of lowest rates, 1879, Connecticut preserved the high average of the preceding inquiry. In this State the low level was not reached until three years after it had been found in the other Eastern States.

#### ORDINARY DAY WAGES, WITH BOARD.

STATES.	1892.	1890.	1888.	1885.	1882.	1879.	1875.	1869.	1866.
Maine. . .	\$0.96	\$0.98	\$0.92	\$0.88	\$0.91	\$0.72	\$1.05	\$1.05	\$1.13
N. Hampshire,	.96	1.00	.95	.95	.97	.74	1.12	1.41	1.26
Vermont, .	.94	.92	.90	.88	.90	.64	1.11	1.28	1.32
Massachusetts,	.98	1.00	1.00	1.00	1.08	.75	1.12	1.37	1.38
Rhode Island,	.98	1.02	1.02	.94	1.00	.50	1.18	1.18	1.33
Connecticut, .	.97	1.00	1.00	1.00	.98	.88	1.16	1.37	1.29
New York, .	.90	.90	.90	.93	.93	.68	1.06	1.19	1.23

The average in the United States in the ten years ending in 1892 was sixty-seven cents. In the Eastern States in the same period it was ninety-six cents. In Connecticut a little more than the average was paid. The highest wages in the Eastern States were paid in Massachusetts and Rhode Island, and the lowest in Vermont and

New York. The average allowance for board per day in the United States, in 1892, was twenty-five cents; in the Eastern States it was thirty-six cents, and in Connecticut it was forty-one cents.

#### WAGES PRIOR TO 1866.

Detailed data as to farm labor wages prior to 1866 do not exist, but from local records in existence in many districts, kept generally by methodical farmers, Professor Dodge deduced some interesting conclusions. Analyzing these local records concerning farm wages from 1840 to 1865, in comparison with the results of the more recent investigations, Professor Dodge reaches the conclusion that in fifty years the compensation of farm labor has very nearly doubled. "Including all grades of service and degrees of efficiency," he says, "it would be fair to make the general average for labor of white men (in 1840) about \$8.50 per month with board and \$12.50 without board." In 1892 it was about \$15.85 with board and \$23.50 without board.

Wages advanced slowly as population increased and manufacturing gradually extended, and in 1860 a range of \$10 to \$15 was common in the East, with an average approximating \$12, while in exclusively agricultural districts it was \$9 to \$10. The general average is given approximately at \$11. Then came the war period, with a rapid rise in wages.

The Connecticut agent of the Department of Agriculture states, as a result of his investigations, that from 1850 to 1855 monthly wages in this State by the year were, with board, \$9 to \$12, and without board, \$18 to \$20. For the six summer months, \$12 to \$16 per month, with board, was paid; and for July, \$24, with board. Wages by the day, with board, were \$1.25 during the haying season and seventy-five cents at other times. From 1860 to 1854 wages by the year, without board, were from \$22 to \$35 per month.





# LABOR LEGISLATION.

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RECAPITULATION OF BILLS PASSED AND PROPOSED.



## LABOR LEGISLATION.

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### Recapitulation of Bills Passed and Proposed.

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The General Assembly, during the session of 1893, considered a number of bills for public acts of interest particularly to working people. The following compilation has been made in order to give all who desire the information what may be termed a Legislative history of the various measures. In many instances much interest was taken in bills that failed to become laws, and the facts in relation to these are also presented. The bills that were passed are first given, and then follows a list of those that were rejected. In both groups the action of each house in relation to the various measures is given, and this is supplemented by references to the public hearings before committees.





## BILLS PASSED.

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[Senate Bill No. 3.]

### CONCERNING LABELS AND TRADE MARKS OF TRADE UNIONS.

Introduced by Senator Holden, January 17, and referred to the Judiciary Committee. Committee hearing March 24, at which a number of persons, principally members of Cigar Makers' and Hatters' unions, urged the passage of the bill. Representatives Hammersley of Hartford and Beardsley of Bridgeport drafted a substitute bill. Adversely reported. Passed by the Senate May 17, and by the House May 18. The law is as follows:

SECTION 1. Whenever any person, association, or union of workmen have adopted, or shall hereafter adopt for their protection, any label, trade-mark or form of advertisement announcing that goods to which such label, trade-mark, or form of advertisement shall be attached were manufactured by such person, or by a member or members of such association or union, it shall be unlawful for any person or corporation to counterfeit or imitate such label, trade-mark, or form of advertisement. Every person violating this section shall upon conviction be punished by imprisonment in the county jail for not less than three months nor for more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or both.

SEC. 2. Every person who shall use any counterfeit or imitation of any label, trade-mark, or form of advertisement of any such person, union, or association, knowing the same to be counterfeit or imitation, shall be guilty of a misdemeanor, and shall be punished by imprisonment in the county jail for a term of not less than three months nor more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or both.

SEC. 3. Every such person, association, or union that has heretofore adopted, or shall hereafter adopt a label, trade-mark, or form of advertisement as aforesaid, may file the same for record in the office of the Secretary of the State by leaving two copies, counterparts, or fac-similes thereof with the Secretary of the State; said Secretary shall deliver to such person, association, or union so filing

the same a duly attested certificate of the record of the same, for which he shall receive a fee of one dollar. Such certificate of record shall in all suits and prosecutions under this act be sufficient proof of the adoption of such label, trade-mark, or form of advertisement, and of the right of said person, association or union to adopt the same. No label shall be recorded that would probably be mistaken for a label already of record.

SEC. 4. Every such person, association, or union adopting a label, trade-mark, or form of advertisement, as aforesaid, may proceed by suit to enjoin the manufacture, use, display, or sale of any such counterfeits or imitations, and all courts having jurisdiction thereof shall grant injunctions to restrain such manufacture, use, display or sale; and shall award the complainant in such suit such damages resulting from such wrongful manufacture, use, display, or sale as may by said court be deemed just and reasonable, and shall require the defendants to pay to such person, association, or union the profits derived from such wrongful manufacture, use, display, or sale; and such court shall also order that all such counterfeits or imitations in the possession or under control of any defendant in such case be delivered to an officer of the court or to the complainant, to be destroyed.

SEC. 5. Every person who shall use or display the genuine label, trade-mark, or form of advertisement of any such person, association, or union in any manner not authorized by such person, union, or association, knowing that such use or display is not so authorized, shall be deemed guilty of a misdemeanor, and shall be punished by imprisonment in the county jail not less than three months nor more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or both. In all cases where such association or union is not incorporated, suits under this act may be commenced and prosecuted by any officer or member of such association or union in behalf of and for the use of such association or union.

SEC. 6. Any person or persons who shall in any way use the name or seal of any such person, association, or union, or officer thereof, in and about the sale of goods or otherwise, not being authorized to so use the same, knowing that such use is unauthorized, shall be guilty of a misdemeanor, punishable by imprisonment in the county jail for not less than three months nor more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or both.

Approved May 25, 1893.

[ House Bill No. 25.]

#### CONCERNING SEATS FOR FEMALE OPERATIVES.

Introduced by Representative Healy of Windsor Locks, January 17, and referred to the Committee on Labor. Committee hearing, March 17, at which letters were read from the Willimantic Linen

Company and Cheney Bros., favoring the bill. Favorable report. Passed in the House April 5, and in the Senate April 13. The law is as follows:

SECTION 1. Every person, partnership, or corporation employing females, in any mercantile, mechanical, or manufacturing establishment in this State, shall furnish and provide suitable seats for the use of all females so employed, and shall permit the use of such seats by said females when they are not necessarily engaged in the active duties for which they are employed.

SEC. 2. Any person, partnership, or corporation violating any of the provisions of this act shall be punished by a fine of not less than five dollars nor more than fifty dollars for each and every offense.

Approved April 25, 1893.

[ House Bill No. 283.]

FOR THE PRESERVATION OF THE HEALTH OF FACTORY EMPLOYES.

Introduced by Representative Crowley of Meriden and referred to the Committee on Public Health. Favorable report on substitute bill. Passed by the House May 12, and by the Senate June 1. The law is as follows:

SECTION 1. Whenever the inspector of factories, on complaint of any person, after due investigation, shall find it necessary for the preservation of the health of the employes in any manufacturing establishment, factory, or mill in which is carried on the business of buffing, polishing, or grinding metals, or any operations in which an excessive amount of dust is generated, that the excessive dust resulting from said operations should be removed from the atmosphere of the rooms or apartments used for that purpose, he shall, in writing, direct the person or persons, or corporation owning or occupying said premises, or carrying on business in such premises, within three months from the date of said order, to introduce and operate such appliances or devices as may be necessary to remove, so far as the nature of the business will permit, such excessive dust or foreign matter from the atmosphere of such mill, factory, or apartment used for the purposes aforesaid; *provided*, such appliances or devices do not restrict or interfere with the aforesaid business or operations.

SEC. 2. Any violation of any proper order made or given by the inspector of factories, under the provisions of the preceding section, shall be punished in the manner provided in Section 2269 of the General Statutes.

Approved June 14, 1893.

## [ House Bill No. 23.]

## CONCERNING THE EMPLOYMENT OF CUSTODIANS OF ELEVATORS.

Introduced by Representative Healy of Windsor Locks, January 27, and referred to the Committee on Labor. Committee hearing February 9. No opposition. Reported favorably after having been amended by striking out twenty-one years as the minimum age and substituting eighteen. Recommitted by House February 24. Again reported favorably with the age limit reduced to sixteen years. Passed by the House March 30, and by the Senate April 17. The law is as follows:

SECTION 1. No person, partnership, or corporation shall permit or employ any person under the age of sixteen years to have the care, custody, operation, or management of any elevator.

SEC. 2. Any person, partnership, or corporation violating the provisions of this act shall be punished by a fine of not less than five dollars nor more than twenty-five dollars for each offense.

Approved April 19, 1893.

## [ House Bill No. 36.]

## CONCERNING THE ENCLOSURE AND SECURITY OF ELEVATORS.

Referred to Committee on Labor. Committee hearing February 14. Factory Inspector Simmons favored applying safety devices, and there was no opposition to the bill. Substitute bill reported. Amended and passed by the House April 26, and by the Senate May 3. The law is as follows:

Section 2266 of the General Statutes is hereby amended to read as follows: The inspector of factories may order the opening of all hoistways, hatchways, elevator wells, and well holes, upon every floor of every factory, mercantile establishment, or other building where machinery shall be used, to be protected by good trap doors, self-closing hatches and safety catches, or other safeguards, such as will ensure the safety of the employes in such factory, mercantile establishment, or other building where machinery shall be used, and all due diligence shall be used to keep such trap doors closed at all times, except when in actual use by an occupant of the building having the use and control of the same. All elevator cabs or cars, whether used for freight or passengers, shall be provided with some suitable mechanical device, if considered necessary by the said inspector, whereby the cab or car will be securely held in the event of accident to the shipper rope or hoisting machinery, or from any

similar cause, and said mechanical device shall at all times be kept in good working order.

Approved May 18, 1893.

[ House Bill No. 470.]

AUTHORIZING THE FACTORY INSPECTOR TO APPOINT SPECIAL  
AGENTS.

Introduced by Representative Healy of Windsor Locks, March 9, and referred to the Committee on Labor. Committee hearing March 29. Favorable report. Passed in the House May 26, and in the Senate June 2. The law is as follows:

Section 2272 of the General Statutes is hereby amended to read as follows: The inspector may from time to time employ special agents to assist him in the performance of the duties of his office. Such special agents while so employed shall have the same power and authority as the inspector, subject to his approval. The total amount expended under this section shall not exceed in any one year the sum of three thousand dollars, which shall be paid in the same manner as the expenses of other departments of the State government, upon proper vouchers by the special agents, signed by the inspector.

Approved June 14, 1893.





## BILLS REJECTED.

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### BILLS CONCERNING FOREIGN ATTACHMENT.

Seven bills and a number of petitions were presented relative to a repeal of or alterations in the present foreign attachment or "factorizing" law. Among the propositions for laws were bills for the total repeal of the \$50 exemption, others for a \$10 limit, and one favoring a dollar. The Judiciary Committee considered all these measures. The arguments advanced by the merchants at the hearings was that they desired the abolition of the present \$50 limit more for the moral effect on their debtors than because they wished to institute suits. The committee, April 19, reported the following substitute bill and recommended its passage:

SECTION 1. Any debt accruing from personal services of the debtor may be attached for any debt due from such debtor for board, clothing, rent, or medical services, or any debt contracted for the support of the debtor or his family.

SEC. 2. No costs shall be allowed the plaintiff in any suit brought to recover any debt mentioned in Section 1 of this Act, unless the amount of the judgment for damages recovered by the plaintiff shall exceed ten dollars.

May 3, by a yea and nay vote of 127 to 66, the House passed the bill. In the Senate, May 10, the bill was rejected by a yea and nay vote of 13 to 7. May 12 the House insisted on its action, and appointed Messrs. Wood of Manchester and Wall of Middletown as conferees. May 17 the Senate appointed Senator Fox to confer with the House committee. The committee was unable to agree. June 27 the Senate voted to adhere to its action, and the House did likewise June 28, which disagreeing action defeated the bill. Consequently the existing law, under which "factorizing" has practically been abolished, remains in force.

## [ House Bill No. 62.]

EIGHT HOURS AS A DAY'S WORK FOR ALL STATE, MUNICIPAL, AND  
TOWN LABORERS.

Providing that eight hours shall constitute a day's work for all laborers, workmen, mechanics, or other persons employed by or on behalf of the State of Connecticut, or on any State contract, or by any city, county, borough, or town, or other municipality, except in cases of extraordinary emergency, in time of war, or for the protection of property or human life. Not less than the current rate of wages to be paid, and all contracts for labor and material to be made upon the basis of eight hours as a day's labor.

Introduced by Representative Healy of Windsor Locks, January 24, and referred to the Committee on Labor. Committee hearing March 1, at which a number of persons were heard. The majority opposed the bill. An unfavorable report was made and the bill was rejected.

## [ House Bill No. 467.]

## NINE HOURS AS A DAY'S LABOR.

Providing that no person shall be employed in any mechanical, mercantile, or manufacturing establishment, except when necessary to make repairs, more than nine hours in any day, or when a different apportionment of hours of labor is made for the sole purpose of making a shorter day of one day of the week. Every employer shall post a notice stating the number of hours' work required in each day of the week. The employment of any person for a longer time in any day, unless to make up for time lost on some previous day in the same week in consequence of the stoppage of machinery, shall be deemed a violation of this section. In no case shall the hours of labor exceed fifty-four in a week. Every violation to be punished by a fine of not more than \$50.

Introduced by Representative Healy of Windsor Locks (also House Bill 466 on the same subject), March 9, and referred to Committee on Labor. Committee hearing April 29. An unfavorable report was made, and the bill was rejected.

## [ House Bill No. 40.]

TO REGULATE THE HOURS OF EMPLOYMENT OF STREET RAILROAD  
EMPLOYEES.

Providing that twelve hours' labor, to be performed within twelve consecutive hours, with not less than one hour for meals,

shall constitute a day's labor in the operation of all cable, electric, traction, and horse car street surface railroads. Penalty, \$100.

Introduced by Representative Healy of Windsor Locks, January 24, and referred to the Committee on Labor. Hearings held February 7, 14, 16, and 23. Chiefly advocated by representatives of organized labor from Meriden. Favorable report. Passed by the House March 14. Senate voted to indefinitely postpone. Senator Coffey and Representatives Healey of Windsor Locks and House of Manchester appointed as a committee of conference. No report made and no further action taken.

[ House Bill No. 281.]

EMPLOYMENT OF WOMEN AND MINORS.

The bill proposed to amend Section 1745 of the General Statutes by striking out the words "or where a different apportionment of hours of labor is made for the sole purpose of making a shorter day's work for one day in the week" in the fifth, sixth, and seventh lines, so that said section shall read: "No minor under 16 years of age and no woman shall be employed in laboring in any manufacturing, mechanical, or mercantile establishment more than ten hours in any day, except when necessary to make repairs and prevent the interruption of the ordinary running of the machinery. The employment of any such person for longer time in any day shall be deemed a violation of the law, unless such employment is to make up for time lost some previous day in the same week in consequence of the stoppage of the machinery, but in no case shall the hours of labor exceed sixty in a week." A penalty was provided of \$20 for each offense. Certificate of age of minor made by himself or by his parents or guardian to be conclusive evidence of his age on the part of the employer.

Introduced by Representative Crowley of Meriden, February 14, and referred to the Committee on Labor. Committee hearing March 22, at which it was suggested that a substitute bill be prepared. None was presented, an unfavorable report was made, and the bill was rejected.

[ House Bill No. 22.]

EMPLOYMENT OF WOMEN AND MINORS.

Prohibiting the employment of any woman or minor in any capacity in any mechanical, mercantile, or manufacturing establish-

ment between the hours of nine o'clock at night and seven o'clock in the morning, under penalty of not less than \$5 or more than \$50 for each offense.

Introduced by Representative Healy of Windsor Locks, January 27, and referred to the Committee on Labor. Hearing March 22. An unfavorable report was made, and the bill was rejected.

[ House Bill No. 280.]

#### EMPLOYMENT OF CHILDREN UNDER FOURTEEN.

The bill proposed to amend Section 1753 of the General Statutes by striking out the word "thirteen" in the first line, and inserting in lieu thereof the word "fourteen." The section would then read as follows: "No child under fourteen years shall be employed in any mechanical, mercantile, or manufacturing establishment."

Introduced by Representative Crowley of Meriden, February 14, and referred to the Committee on Labor. Committee hearing March 17. A number of persons were heard, including Giles Potter, agent of the State Board of Education, who did not think the proposed measure would be beneficial. An adverse report was made, and the bill was rejected.

[ Senate Bill No. 52.]

#### IN REFERENCE TO THE EMPLOYMENT OF DRIVERS.

"Any person who shall employ or permit a minor under eighteen years of age to drive a horse or horses used to convey persons for hire shall be fined not more than ten dollars."

Introduced by Senator Jones, February 8, and referred to the Committee on Labor. Committee hearing assigned for March 1, at which no one appeared. Favorable report. Passed by the Senate May 5. Rejected by the House May 11. Senate insisted May 16, and Senator Jones was appointed as a conference committee. House insisted May 18, and appointed Messrs. Cortis of Thompson and Callahan of New Haven. Rejected by the House May 31, and by the Senate June 2.

[ House Bill No. 38.]

#### CONCERNING REPORTS OF ACCIDENTS TO THE INSPECTOR OF FACTORIES.

The bill provided that all manufacturers and proprietors of mercantile establishments, mines, or quarries should notify the inspector of factories immediately of any accident to an employe



while in their employ that resulted in death or injury sufficient to prevent returning to work within six days. The inspector of factories was given power to make inquiries and instructed to keep a record of such accidents, and print an abstract in his annual report. A penalty of not exceeding \$50 was imposed.

Referred to the Committee on Labor. Committee hearing March 1. Substitute bill reported March 2. Passed the House by a ye and nay vote March 28. Indefinitely postponed by the Senate April 5. House voted to insist April 19, and Messrs. Crowley of Meriden and House of Manchester were appointed as a committee of conference on the part of the House. Senator Brooker appointed on the part of the Senate April 26. Both bodies voted to adhere, and the bill consequently failed to pass.

[House Bill No. 431.]

#### DUTIES OF FACTORY INSPECTOR.

Giving the inspector of factories the power, in order to protect employes against fire, to order doors so hung as to open outward, to order ladders or stairs built by means of which employes can get out upon the roof, and to order such a number of sufficient fire-escapes as he shall deem necessary to insure the safety of employes. No prosecution for violation to be brought until sixty days after written notice has been given. Penalty not less than \$50 or more than \$500.

Introduced by Representative House of Manchester, March 2, and referred to the Committee on Labor. Committee hearing March 29. No one in favor. An unfavorable report was made, and the bill rejected.

[House Bill No. 430.]

#### REPORTS OF FACTORY INSPECTOR.

Making it a duty of the inspector of factories to state the name of each factory inspected, the number of improvements or alterations ordered, and giving each factory or workshop a rating, said ratings to be classed as fair, good, or excellent.

Introduced by Representative Bradley of Meriden, March 2, and referred to the Committee on Labor. Committee announced hearing for March 29, at which no one appeared. An unfavorable report was made, and the bill rejected.

[ House J. R. 391.]

PROVIDING A CLERK FOR THE FACTORY INSPECTOR.

The resolution authorized the factory inspector to employ a clerk at a salary of not more than \$1,000 per annum.

Introduced by Representative Healy of Windsor Locks, March 9, and referred to the Committee on Labor. At the committee hearing assigned for March 29 no one appeared. An unfavorable report was made and the bill was rejected.

[ House Bill No. 468.]

INCREASING THE SALARY OF THE FACTORY INSPECTOR.

Amending Section 3706 of the General Statutes so as to increase the salary of the factory inspector to \$2,500.

Introduced by Representative Healy of Windsor Locks, March 9, and referred to the Committee on Labor. Committee hearing March 29. An unfavorable report was made, and the bill was rejected.

[ Senate Bill No. 164.]

PROTECTION OF GRINDSTONES.

The bill provided that all users of emery wheels or grindstones making more than 200 revolutions per minute should protect the same by a hood or other covering, or such other protection as the commissioner of labor shall direct, and such covering shall be so placed that not more than two inches of the periphery of the wheel shall be exposed. Imposing a fine of \$100 on all owners of such wheels or grindstones who shall not provide such protection within sixty days.

Introduced by Senator Root (by request), March 3, and referred to the Committee on Labor. Committee hearing March 22. No one appeared. Unfavorable report and bill rejected.

[ House Bill No. 498.]

IN REFERENCE TO BAKERIES.

Prohibiting the establishment of bakeries in kitchens, cellars, or underground apartments lower than the level of the ground, and that all such business shall be carried on in buildings that shall be well ventilated and lighted. Also putting bakeries under the

control and supervision of the inspector of factories, with the same power as he has in relation to factories. Penalty not less than \$50 nor more than \$100 for each offense.

Introduced by Representative Crowley of Meriden, March 10, and referred to the Committee on Labor. Committee hearing April 5, at which bakers and employers' counsel from Waterbury, Meriden, Hartford, and New Haven were heard. An unfavorable report was made, and the bill was rejected.

#### RELATING TO BUILDING AND LOAN ASSOCIATIONS.

Substitute bill providing for the organization and management of building and loan associations to be subject to the bank commissioners' examination and control, as savings banks are now. Also providing that every similar foreign association shall be subject to the provisions of this act, and file statements of its financial standing and business done with the bank commissioners, they to have power to revoke the license of any such association if they see fit.

Two bills were presented on this subject, and the one of which the above is an abstract was favorably reported by the Judiciary Committee. At the hearings, held March 17 and April 12, the opposition came from representatives of the foreign associations doing business in Connecticut. June 22 the substitute bill passed the House, but was rejected June 27 in the Senate. June 28 the Senate voted to adhere and refuse a committee of conference requested by the House on the same day, which action resulted in the failure of the bill.

[ House Bill-No. 484.]

#### CONCERNING MECHANICS' LIENS

Any person furnishing materials or rendering services in the construction or repairs on any building may, while so engaged in furnishing materials or rendering services, or within thirty days after, give the owner of said building or the original contractor notice in writing that he intends to claim a lien therefor on said building. Said lien shall be subject to the provisions of Section 1388 of the General Statutes. Said notice shall contain a description of the land or building on which the claim is made, and a statement of the probable amount of the claim, to be lodged with the town clerk, to date from the time when the service of said

notice is made upon the owner of said building or the original contractor.

Two substitute bills were also proposed, one placing the time limit at ten days and the other at one year.

The main bill, 484, was introduced by Representative McCarthy of Naugatuck, and referred to the Judiciary Committee. Committee hearing March 24. An unfavorable report was made, and the bill was rejected.

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